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LIRIS

Proper grammatical gender: *Liris*, an ancient Roman name of Garigliano River, Italy, is masculine (Menke and R. Bohart, 1979:117).

Liris Fabricius, 1804:227. Type species: *Sphex auratus* Fabricius, 1787, junior primary homonym of *Sphex auratus* Linnaeus, 1758 [= *Sphex aurulentus* Fabricius, 1787], designated by Patton, 1880b:386.

Lirisis Rafinesque, 1815:124. Emendation or substitute name for *Liris* Fabricius, 1804.

Notogonia A. Costa, 1867b:82, junior homonym of *Notogonia* Perty, 1850 (Crustacea). Type species: *Tachytes niger* of Vander Linden, 1829 [= *Larra nigra* of Latreille, 1805 = *Pompilus niger* of Panzer, 1799 = *Sphex niger* Fabricius, 1775], by monotypy.

Motes Kohl, 1897a:351. Type species: "*Notogonia odontophora* Kohl, 1892" [= *Larra odontophora* Kohl, 1894], designated by Pate, 1837c:41.

Caenolarra Cameron, 1900a:28. Type species: *Caenolarra appendiculata* Cameron, 1900 [= *Spanolarra rufitarsis* Cameron, 1900], junior secondary homonym of *Liris appendiculatus* (Taschenberg, 1870), by monotypy.

Leptolarra Cameron, 1900a:29. Type species: *Leptolarra reticulata* Cameron, 1900, junior secondary homonym of *Liris reticulatus* (de Saussure, 1892) [= *Leptolara nigricans reticuloides* Richards, 1935 = *Liris nigricans reticuloides* (Richards)], designated by Richards, 1935a:164.

Spanolarra Cameron, 1900a:32. Type species: *Spanolarra rufitarsis* Cameron, 1900, by monotypy.

Notogonius Howard, 1901:pl. 6, fig. 1 (June). Lapsus for *Notogonia* A. Costa. Bohart and Menke (1976:43) write the following: "There are numerous spelling errors in Howard's book, and we regard *Notogonius* as a lapsus for *Notogonia* Costa. This view was also shared by G.E. Bohart (1951:954) who nevertheless recognized *Notogonius nigripennis* (Fox) as type species, an unnecessary action. The specimen figured by Howard is in the U.S. National Museum and is *Liris argentatus* (Palisot de Beauvois), not *nigripennis*".

Chrysolarra Cameron, 1901b:118 (Aug.). Type species: *Chrysolarra appendiculata* Cameron, 1901, junior secondary homonym of *Liris appendiculatus* (Taschenberg, 1870), designated by Pate, 1837c:18.

Notogonidea Rohwer, 1911d:234. Substitute name for *Notogonia* A. Costa, 1867.

Dociliris Tsuneki, 1967b:26, as subgenus of *Liris*. Type species: *Larrada subtessellata* F. Smith, 1856, by original designation. Synonymized with *Leptolarra* Cameron, 1900, by Menke in R. Bohart and Menke, 1976:43.

Nigiliris Tsuneki, 1967b:27, as subgenus of *Liris*. Type species: *Notogonia japonica* Kohl, 1885 [= *Liris festinans japonicus* (Kohl)], by original designation. Synonymized with *Leptolarra* by Menke in R. Bohart and Menke, 1976:43.

Colloliris Tsuneki, 1974b:612, as subgenus of *Liris*. Type species: *Notogonidea negrosensis* F. Williams, 1928, by original designation and monotypy. Synonymized with *Leptolarra* by Menke in R. Bohart and Menke, 1976:629.

Pitaliris Tsuneki, 1982e:26, as subgenus of *Liris*. Type species: *Cratolarra pitamawa* Rohwer, 1916, by original designation.

Nesting: *Liris lususator* may be a mud-dauber (F. Williams, 1928a:99).

Review of biology: Kazenas, 2001b:148.

Revisions: de Beaumont, 1961f (Mediterranean species); Krombein and Shanks Gingras, 1984 (North American species)

Keys: R. Turner, 1916e (Australia); Arnold, 1923b (southern Africa); Evans, 1972b (Island of Dominica); Tsuneki, 1982a:10 and 17 (South Pacific islands), 1983a:45 (*Leptolarra* of Philippines); Jonathan, Ray, and Kundu, 2000:191 (Meghalaya State of India); T. Li, Cai, and Q. Li, 2007 (species of China), 2009 (Palearctic species); Pham and Antropov, 2021 (Vietnam).

Members of subgenus *Motes*:

1. *anticus* (F. Smith, 1856), Neotropical
2. *antilles* (Krombein, 1953), Caribbean Islands
3. *bidentatus* (Arnold, 1923), Afrotropical
4. *fulvipes* Fabricius, 1804, Neotropical
5. *inopinatus* de Beaumont, 1961, Mediterranean
6. *mescalero* (Pate, 1943), Nearctic
7. *odontophorus* (Kohl, 1894), Afrotropical
8. *peruanus* (Brèthes, 1924), Neotropical
9. *rubellus* (F. Smith, 1856) = *cyphononyx* (Kohl, 1894), Afrotropical
10. *rugifer* (Turner, 1918), Afrotropical

1. *abbreviatus* (R. Turner)

Notogonia abbreviata R. Turner, 1908:481, ♀. Holotype or syntypes: ♀, Australia: Queensland: Cairns (BMNH). – R. Turner, 1916e:281 (in revision of Australian *Liris*). – **As *Liris abbreviata***: R. Bohart and Menke, 1976:243 (new generic assignment, in checklist of world Sphecidae); Cardale, 1985:234 (in catalog of Australian Sphecidae).

2. *abyssinicus* (Arnold)

Notogonidea abyssinica Arnold, 1933:353, ♂. Holotype: ♂, Ethiopia: between Addis Ababa and Jej-Jem (BMNH). – **As *Motes abyssinica***: Bonelli, 1976:228 (new generic assignment, nesting habits); Steiner, 1986:102 (references to papers on nesting habits). – **As *Liris abyssinica***: Arnold, 1951:160 (new generic assignment, Ethiopia: Fiché); R. Bohart and Menke, 1976:243 (in checklist of world Sphecidae).

3. *aciculatus* (Cameron)

Notogonia aciculata Cameron, 1905c:225, ♀. Holotype or syntypes: ♀, India: Assam: Khasia Hills (OXUM). – Ramakrishna Aiyar, 1916:552 (in catalog of Indian aculeates described after Bingham, 1897). – **As *Liris aciculata***: R. Bohart and Menke, 1976:244 (new generic assignment, in checklist of world Sphecidae); Jonathan, Ray, and Kundu, 2000:193 (India: previously recorded from Meghalaya: East Khasi Hills).

4. *aedilis* (F. Smith)

Larrada aedilis F. Smith, 1858b:16, ♀. Holotype or syntypes: ♀, Indonesia: Sulawesi: no specific locality (BMNH). – F. Smith, 1863b:135 (known from Sulawesi). – **As *Larra aedilis***: Kohl, 1885a:240 (new generic assignment, in checklist of world *Larra*); Dalla Torre, 1897:661 (in catalog of world Hymenoptera). – **As *Liris aedilis***: R. Bohart and Menke, 1976:244 (new generic assignment, in checklist of world Sphecidae).

5. *agilis* (F. Smith)

Larrada agilis F. Smith, 1856:284, ♀. Holotype or syntypes: ♀, Gambia: no specific locality (BMNH). – **As *Larra agilis***: Kohl, 1885a:240 (new generic assignment, in checklist of world *Larra*); Dalla Torre, 1897:661 (in catalog of world Hymenoptera). – **As *Notogonia agilis***: R. Turner, 1917e:196 (new generic assignment, as synonym of *Liris niger*); Richards, 1928a:359 (as synonym of *Notogonia pompiliformis*). – **As *Leptolarra agilis***: nec Richards, 1935:164 (new generic assignment) and de Beaumont, 1940a:18 (= *Liris niger*). – **As *Liris agilis***: de Beaumont, 1961f:242 (new generic assignment, in revision of Mediterranean *Liris*), 1968a:261 (Canary Islands: Tenerife); Simon Thomas, 1969a:120 (Canary Islands: Tenerife); de Beaumont, Bytinski-Salz and Pulawski, 1973:5 (Israel); Báez and Ortega, 1978:192 (Canary Islands); Guichard, 1980:226 (Oman); Wolf, 1980:72 (Canary Islands); Al-Houty, 1989:160 (Kuwait: Erifjan, Khwasat, Nuaseeb, Sulabiya); Schembri, 1991:180 (first record from Malta); Hohmann, La Roche, Ortega, and Barquín, 1993:216 (detailed locality records from Canary Islands); Al-Houty, 1997:161 (Kuwait: no specific locality); Roche, 2007a:67 (in checklist of Egyptian Crabronidae), 2007b:4 (in checklist of Egyptian Ampulicidae, Sphecidae, and Crabronidae); T. Li, Cai, and Q. Li, 2009a:117, 119 (in key to *Liris* of China), 119 (first record from China: Xinjiang: Shihezi City and Tienshan: Janxin Cui); Schmid-Egger,

2011b:546 (first record from United Arab Emirates: Al-Ajban, Wadi Madaq, Wadi Wurayah), 547 (color photograph of female), 2014:575 (United Arab Emirates); Schmid-Egger, Dandria, and Xuereb, 2016:80 (in checklist of Crabronidae of Maltese Islands); Gadallah, 2020b:37 (in list of aculeate wasps of Arabian Peninsula); Ghaderipour, Khayrandish, Madjdzadeh, Ebrahimi, and Schmid-Egger, 2020:118 (Iran: Kerman); Rezaei, Fallahzadeh, Dousti, and Saghaei, 2020b:11 (Iran: Fars: Laristan: Baen at 27°39'54"N 54°16'39"E); Ben Khedher, Yildirim, and Braham, 2021a:59 (first record from Tunisia: Kebili: South Kebili: Errahmat at 33°39'1.8"N 8°58'27.4"E).

Notogonia argyropyga var. *costae* Magretti, 1884c:588, ♀ (as *Costae*, incorrect original capitalization). Syntypes: ♀, Sudan: Doka, Kor Gerbabb, Sawakin (MSNG). Synonymized with *Liris agilis* by de Beaumont, 1961f:242. – **As *Larra argyropyga* var. *costae***: Kohl in Dalla Torre, 1897:663 (new generic assignment, in catalog of world Hymenoptera)

Liris cooperi de Beaumont, 1950d:16, ♀, ♂. Holotype: ♀, Egypt: Siwa oasis (BMNH). Synonymized with *Liris agilis* by de Beaumont, 1961f:242. – de Beaumont, 1953a:175 (Mauritania), 1955a:170 (Morocco), 1956d:3 (Cabo Verde Islands), 1960b:237 (Libya).

Larra sp.: Groh, 1982:260 (Cape Verde Islands), corrected to *Liris atratus* by Simon Thomas and Wiering, 1993:404.

6. *agitatus* (R. Turner)

Notogonia agitata R. Turner, 1908:477, ♀. Syntypes: ♀, Australia: Queensland: Mackay and Cairns (BMNH). – R. Turner, 1916e:284 (in revision of Australian *Liris*). – **As *Liris agitata***: R. Bohart and Menke, 1976:244 (new generic assignment, in checklist of world Sphecidae); Cardale, 1985:234 (in catalog of Australian Sphecidae).

7. *alaris* (de Saussure)

Notogonia alaris de Saussure, 1892:503, ♀, ♂. Lectotype: ♀, Madagascar: Antananarivo or Anosibé in Bezanozano Province (MHNG), designated by Leclercq, 1961d:113 (specific locality not stated). – **As *Larra alaris***: Kohl in Dalla Torre, 1897:661 (new generic assignment, in catalog of world Hymenoptera). – **As *Liris alaris***: Arnold, 1945:125 (new generic assignment, in revision of Madagascar Sphecidae); R. Bohart and Menke, 1976:244 (in checklist of world Sphecidae); Pulawski, 2003b:796 (in checklist of Malagasy Sphecidae); Madl, 2014a:966 (in catalog of Ampulicidae, Crabronidae, and Sphecidae of Madagascar, with synonymy and locality records).

ssp. felinus (Arnold)

Notogonidea felina Arnold, 1923b:247, ♀, ♂. Syntypes: South Africa: Durban, Sundays River, and Zimbabwe: Bulawayo (SAM, TMP). – Arnold, 1930:6 (in checklist of Afrotropical Sphecidae), 1935a:498 (South Africa: Kalahari). – **As *Liris alaris felina***: Arnold, 1944:23 (new generic assignment, new status); R. Bohart and Menke, 1976:244 (in checklist of world Sphecidae).

8. *alberti* (Arnold)

Leptolarra alberti Arnold, 1943:79, ♀, ♂ (as *Alberti*, incorrect original capitalization). Syntypes: Zaire: Rutshuru in Albert National Park, now Virunga National Park (MRAC). – **As *Liris alberti***: R. Bohart and Menke, 1976:244 (new generic assignment, in checklist of world Sphecidae).

Liris alberti Arnold, 1944:37, ♀, ♂ (as *Alberti*, incorrect original capitalization). Syntypes: Zaire: Rutshuru (MRAC). Objective synonym of *Leptolarra alberti* Arnold, 1943.

9. *albopilosus* Tsuneki

Liris albopilosus Tsuneki, 1967b:38, ♂, ♀ (as *albopilosa*, incorrect original termination). Holotype: ♂, Taiwan: Hualien Prefecture: Liyuchih (originally K. Tsuneki coll., now USNM). – Tsuneki, 1967:9, 15 (in key to Larrinae of Taiwan); Haneda, 1971b:29 (Taiwan); Tsuneki, 1971h:7 (Taiwan); Haneda, 1972a:4 (Taiwan); Murota, 1973b:118 (Taiwan); Tsuneki, 1974b:607 (Thailand); R. Bohart and Menke, 1976:244 (in checklist of world Sphecidae); Tsuneki, 1983a:30 (Philippines), 46, 48 (in key to *Liris* of Philippines); Nuhn and Menke, 1994:25 (holotype transferred to USNM); Porter, Stange, and Wang, 1999:7 (in checklist of Sphecidae of Taiwan). – **As *Liris albopilosus***: Yamane, Ikudome, and Terayama, 1999:514 (in Identification Guide to Crabronidae of Nansei = Ryukyu Islands, Japan); Hua, 2006:280 (in list of Chinese insects, geographic distribution); T. Li, Cai, and Q. Li, 2007:419, 422 (in key to *Liris* of China), 2009a:117, 118 (in key to Palearctic *Liris*).

10. *angustiventris* (Arnold)

Notogonidea angustiventris Arnold, 1923b:248, ♀, ♂. Holotype: sex not stated: Zimbabwe: Bulawayo (SAM). – Arnold, 1930:6 (in checklist of Afrotropical Sphecidae); Hancock, Chahwanda, and Mhlanga, 1995:39 (syntypes in Bulawayo Museum). – **As *Liris angustiventris***: R. Bohart and Menke, 1976:244 (new generic assignment, in checklist of world Sphecidae).

11. *antaka* (de Saussure)

Notogonia antaka de Saussure, 1890:pl.19, fig. 7, ♀. Holotype: ♀, illustrated specimen, Madagascar: no specific locality (MHNG). – **As *Liris antaka***: R. Bohart and Menke, 1976:244 (new generic assignment, in checklist of world Sphecidae); Pulawski, 2003b:796 (in checklist of Malagasy Sphecidae); Madl, 2014a:966 (in catalog of Ampulicidae, Crabronidae, and Sphecidae of Madagascar, with synonymy and locality records, as *antaka antaka*).

Notogonia ancara de Saussure, 1891:260, ♀. Objective synonym of *Notogonia antaka* de Saussure, 1890. Lectotype: ♀, Madagascar: no specific locality (MHNG), unnecessary designation by Leclercq, 1961d:113 (as *antaka*). – **As *Larra ancara***: Kohl in Dalla Torre, 1897:663 (new generic assignment, in catalog of world Hymenoptera).

Notogonia antaca de Saussure, 1892:505, ♀. Unjustified emendation of *Notogonia antaka* and *ancara*. – Bischoff, 1913c:73 (Zimbabwe: Bulawayo); von Schulthess in Friederichs, 1918a:47 (Madagascar: Diego Suarez); Berland, 1925c:154 (Angola); Arnold, 1929c:394 (as synonym of *Notogonidea radialis*). – **As *Motes antaca***: Leclercq, 1961d:113 (new generic assignment, Madagascar). – **As *Liris antaca***: Arnold, 1945:126 (new generic assignment, Madagascar: Behara; in revision of Madagascar Sphecidae).

ssp. transvaalensis (Cameron)

Notogonia transvaalensis Cameron, 1910b:131, ♀. Holotype or syntypes: ♀, South Africa: Gauteng: Rietfontein in Pretoria District (TMP). – Arnold, 1923b:244 (as synonym of *Notogonidea sepulchralis*). – **As *Liris antaka transvaalensis***: Arnold, 1951:159 (new generic assignment, new status, Ethiopia: Addis Ababa, River Hawash); R. Bohart and Menke, 1976:244 (in checklist of world Sphecidae).

Notogonia brevicarinata Cameron, 1910b:131, ♀. Holotype or syntypes: ♀, South Africa: Transvaal: Pretoria (TMP). Synonymized with *Motes transvaalensis* by Arnold, 1940:123. – Brauns, 1917:242 (type in TMP); Arnold, 1923b:244 (as junior synonym of *Notogonidea sepulchralis*).

Notogonia massaica Cameron, 1908a:287, ♀, ♂. Syntypes: Tanzania: Mount Kilimanjaro: Kibonoto (NRS). – Arnold, 1923b:244 (as junior synonym of *Notogonia sepulchralis*); R. Bohart and Menke, 1976:244 (as tentative synonym of *Liris antaka transvaalensis*).

Notogonia pretoriaensis Cameron, 1910b:132, ♀. Holotype or syntypes: ♀, South Africa: Transvaal: Pretoria (TMP). Synonymized with *Motes transvaalensis* by Arnold, 1940:123. – Brauns, 1917:242 (type in TMP); Arnold, 1923b:244 (as junior synonym of *Notogonidea sepulchralis*).

Notogonidea griseola Arnold, 1923b:246, ♀. Holotype: ♀: Zimbabwe: Bulawayo (SAM). Synonymized with *Liris antaka transvaalensis* by R. Bohart and Menke, 1976:244. – Arnold, 1930:6 (in checklist of Afrotropical Sphecidae). – **As *Motes antaca griseola***: Arnold, 1944:23 (new generic assignment, new status).

12. *anthracinus* Kohl

Liris anthracinus Kohl, 1892:224, ♀ (as *anthracina*, incorrect original termination). Holotype or syntypes: ♀, Sikkim?: no specific locality (NHMW). – Kohl, 1892:228 (in key to world *Liris* s.s.); Dalla Torre, 1897:663 (in catalog of world Hymenoptera); W. Schulz, 1906:205 (omitted by Bingham, 1897); Dover, 1926:234 (China: Hong Kong); R. Bohart and Menke, 1976:244 (in checklist of world Sphecidae); Dollfuss, 1989:10 (type material in NHMW). – **As *Liris anthracinus***: T. Li, Cai, and Q. Li, 2007:419 (in key to *Liris* of China); Barthélémy and Guénard, 2025:21 (China: Hong Kong). – **As *Notogonia anthracina***: Ramakrishna Aiyar, 1916:552 (new generic assignment, in catalog of Indian aculeates described after Bingham, 1897).

13. *anthracinus* (Cameron) (preoccupied)

Notogonia anthracina Cameron, 1903b:117, ♀, junior secondary homonym of *Liris anthracinus* Kohl, 1903. Holotype or syntypes: ♀, India: West Bengal: Barrackpore 20 km north of Calcutta (OXUM). – Rothney, 1903:104 (India: West Bengal: Barrackpore). – **As *Liris anthracina***: R. Bohart and Menke, 1976:244 (new generic assignment, in checklist of world Sphecidae).

14. *anticus* (F. Smith)

Larrada antica F. Smith, 1856:287, ♂. Holotype: ♂, Brazil: "Amazons" (OXUM?). – **As *Larra antica***: Kohl, 1885a:241 (new generic assignment, in checklist of world *Larra*); Dalla Torre, 1897:663 (in catalog of world Hymenoptera). – **As *Motes antica***: Ducke, 1908a:48 (new generic assignment, description of ♀). – **As *Liris antica***: R. Bohart and Menke, 1976:244 (new generic assignment, in checklist of world Sphecidae). – **As *Liris anticus***: Krombein and Shanks Gingras, 1984:17 (in revision of North American *Liris*); Callan, 1991a:8 (Trinidad); Amarante, 2002:41 (in catalog of Neotropical Crabronidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:664 (in checklist of Mexican Sphecidae); Starr and Hook, 2003:19 (in catalog of Aculeata of Trinidad, West Indies).

? *Tachysphex rufogeniculatus* Cameron, 1912a:435, ♂ (as *rufo-geniculata*, incorrect original hyphenation and termination). Holotype or syntypes: ♂, Guiana: Demerara: no specific locality (BMNH). – R. Bohart and Menke, 1976:244 (as tentative synonym of *Liris anticus*); Krombein and Shanks Gingras, 1984:17 (tentative synonym of *Liris anticus*).

15. *antilles* (Krombein)

Motes antilles Krombein, 1953c:14, ♀, ♂. Holotype: ♂, Bahamas: South Bimini Island (AMNH). – **As *Liris antilles***: Alayo Dalmau, 1973:179 (new generic assignment, in catalog of Cuban Hymenoptera), 1976:23 (in checklist of Cuban Sphecidae); Bohart and Menke, 1976:244 (in checklist of world Sphecidae); Elliott, Kurczewski, Claflin, and Salbert, 1979:357 (Bahama Islands: Island of San Salvador); Alayo Soto, 1982:5 (nesting habits); Simon Thomas, 1984:96 (Caribbean: Island of Saint Martin); Elliott, 1992:45 (in list of wasps of Bahama Islands: occurring on islands of Bimini and San Salvador); Amarante, 2002:41 (in catalog of Neotropical Crabronidae); Genaro, 2006:56 (in checklist of Cuban Sphecidae and Crabronidae; also: Isla de la Juventud, Bahamas: Island of South Bimini, Island of San Salvador); Molina Casas and E. Reyes, 2011:224, 225 (Cuba: locality records).

16. *apicalis* (W. Fox)

Notogonia apicalis W. Fox, 1896e:553, ♂. Holotype: ♂, Ethiopia: Bale Province: Sheikh Husein, now Shek Husen (ANSP). – Cresson, 1928:43 (holotype in ANSP). – **As *Liris apicalis***: R. Bohart and Menke, 1976:244 (new generic assignment, in checklist of world Sphecidae).

17. *apicipennis* (Cameron)

Notogonia apicipennis Cameron, 1889a:58, ♀, ♂. Lectotype: ♂, Panama: no specific locality (BMNH), designated by Krombein and Shanks Gingras, 1984:50. – Ashmead, 1899d:249 (in checklist of North American Crabronidae); Cheesman, 1929:151 (Martinique). – **As *Larra apicipennis***: Kohl in Dalla Torre, 1897:663 (new generic assignment, in catalog of world Hymenoptera). – **As *Liris apicipennis***: R. Bohart and Menke, 1976:244 (new generic assignment, in checklist of world Sphecidae); Krombein, 1979b:1618 (in catalog of North American Hymenoptera); Krombein and Gingras, 1984:48 (in revision of North American *Liris*; Panama to Texas); Simon Thomas, 1984:96 (Caribbean: Island of Saint Martin); Hanson and Menke, 1995:639 (known from Costa Rica); Amarante, 2002:39 (in catalog of Neotropical Crabronidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:664 (in checklist of Mexican Sphecidae); Vanoye-Eligio, Meléndez-Ramírez, Ayala, Navarro, and Delfín-González, 2014:638 (Mexico: Yucatán Peninsula); Vanoye-Eligio, Meléndez-Ramírez, Ayala, Navarro-Alberto, and Delfín-González, 2015:994 (Mexico: in list of Sphecidae *sensu lato* of Yucatán); Vanoye-Eligio, Meléndez-Ramírez, Ayala-Barajas, Delfín-González, and Horta-Vega, 2019:7 (Mexico: Yucatán).

18. *appendiculatus* (Taschenberg)

Larrada appendiculata Taschenberg, 1870:7, ♀. Holotype or syntypes: ♀, Brazil: Minas Gerais: Congonhas (Halle). – **As *Larra appendiculata***: Kohl, 1885a:241 (new generic assignment, in checklist of world *Larra*); Dalla Torre, 1897:661 (in catalog of

world Hymenoptera). – **As *Liris appendiculata***: R. Bohart and Menke, 1976:244 (new generic assignment by Menke, in checklist of world Sphecidae); Amarante, 2002:39 (in catalog of Neotropical Crabronidae).

19. *argentatus* (Palisot de Beauvois)

Larra pennsylvanica Palisot de Beauvois, 1811:118, sex not stated. Holotype or syntypes: USA: Pennsylvania: no specific locality (destroyed?). Synonymized with *Liris argentatus* by R. Bohart and Menke, 1976:244. – Cresson, 1862:237 (in catalog of North American Hymenoptera); Patton, 1880b:389 (in checklist of North American Larrinae); Kohl, 1885a:246 (in checklist of world *Larra*); Cresson, 1887:277 (in catalog of North American Hymenoptera); W. Fox, 1894a:483 (unidentified species, original description copied); Dalla Torre, 1897:671 (in catalog of world Hymenoptera, as *pennsylvanica*); J. Smith, 1900:518 (in list of insects of New Jersey), 1910:683 (in new list of insects of New Jersey, as *pennsylvanica*). – **As *Larrada pennsylvanica***: F. Smith, 1856:292 (new generic assignment, in catalog of Hymenoptera in British Museum, as *Pennsylvanica*); Cresson, 1887:277 (listed). – **As ? *Tachysphex pennsylvanicus*** [sic]: Ashmead, 1899d:250 (new generic assignment, in checklist of North American Crabronidae).

Larra argentata Palisot de Beauvois, 1811:119, sex not stated. Holotype or syntypes: USA: Pennsylvania: no specific locality (destroyed?). – Cresson, 1862:237 (in catalog of North American Hymenoptera), 1876:208 (Iowa: Davenport); Kohl, 1885a:241 (in checklist of world *Larra*); Cresson, 1887:277 (in catalog of North American Hymenoptera); Ashmead, 1890:33 (in checklist of Hymenoptera of Colorado), 1894:63 (nest, prey); Dalla Torre, 1897:663 (in catalog of world Hymenoptera); Bridwell, 1899:209 (Kansas: Baldwin, as *argentea*); Piek and Spanjer, 1986:185 (in list of Sphecidae with known prey). – **As *Lyrops argentatus***: Say, 1837:370 (new generic assignment, redescription); Le Conte, 1859b:754 (reprint of Say, 1837:370). – **As *Larrada argentata***: F. Smith, 1856:292 (new generic assignment, in catalog of Hymenoptera in British Museum); Cresson, 1865b:466 (specimen in ANSP collection), 1873:214 (Texas); Snow, 1881:96 (in checklist of Hymenoptera of Kansas: Douglas County: no specific locality). – **As *Notogonia argentata***: W. Fox, 1894a:485 (new generic assignment, in revision of North American Larrinae); Robertson, 1894: 460 (visiting flowers of *Aster paniculatus* Lam.); Ashmead, 1899d:249 (in checklist of North American Crabronidae); Cockerell, 1899a:143 (New Mexico); J. Smith, 1900:517 (in list of insects of New Jersey); Viereck, 1903d:120 (Maryland: College Park); Snow, 1906:134 (Arizona: Oak Creek 20 mi. southwest of Flagstaff, Tucson); Rohwer, 1908a:224 (Colorado); H. Smith, 1908b:374 (in revision of Nebraskan Sphecidae); J. Smith, 1910:683 (in new list of insects of New Jersey); F. Williams, 1914a:142 (in revision of Larrinae of Kansas), 189 (nesting habits); J.Ch. Bradley, 1928:1009 (in catalog of Hymenoptera of New York); G. Carpenter, 1930b:299 (nest closure). – **As *Notogoniidea argentata***: Rohwer, 1916b:684 (new generic assignment, in catalog of Hymenoptera of Connecticut); Mickel, 1918b:409 (in catalog of Nebraskan Sphecidae); Rau and Rau, 1918:152 (nesting habits); Britton, 1920:340 (in checklist of insects of Connecticut); Rau, 1922:26 (prey: *Nemobius fasciatus* DeGeer); Rohwer in Viereck, 1925:684 (in key to Sphecidae of Connecticut); E. Reinhard, 1929:67 (preying on gryllids, nest closure); G. Carpenter, 1930b:299 (nest closure); Brimley, 1938:442 (statewide in North Carolina); K. Cooper, 1950:105 (Massachusetts: Cape Code: Woods Hole). – **As *Motes argentata***: Pate, 1943i:200 (new generic assignment, recorded from USA); Shappirio, 1946:229 (Washington, D.C., as *argentatus*); Krombein, 1950a:267 (North Carolina: Dare County), 1951a:143 (Virginia: Dunn Loring; visiting tulip-tree honeydew, as *argentatus*); Weber, 1950b:16 (first record from Hawaiian Islands: Oahu: Koko Head and Wickham Fields); G. Bohart in Muesebeck, Krombein, and Townes, 1951:954 (in catalog of North American Hymenoptera); Krombein, 1951:143 (nesting habits), 1952a:93 (USA: Virginia: Westmoreland State Park), 1953a:296 (visiting foliage of *Quercus marilandica*), 297 (visiting foliage of *Liquidambar styraciflua*), 331 (North Carolina), 1953b:123 (visiting foliage of *Liquidambar styraciflua* Linnaeus), 125 (attracted to a grass), 132 (North Carolina: Kill Devil Hills), 1953c:14 (Cuba; Bahama Islands: South Bimini), 1954b:16 and 17 (in key to North American *Motes*); Krombein and Evans, 1954:233 (prey), 1955:232 (Florida, nesting habits); Krombein, 1958a:52 (USA: West Virginia: Lost River State Park), 1958c:103 (prey), 1958f:188 (in supplement to catalog of North American Hymenoptera: prey); Yoshimoto, 1960:331 (Hawaiian Islands: Oahu); Krombein, 1963f:273 (Maryland: Plummers Island near Washington, D.C.); Kurczewski and Kurczewski, 1963:146 (Pennsylvania: Presque Isle State Park), 1971:134 (prey); L. Davis, 1978:217 (North Carolina: Kill Devil Hills, data from Krombein, 1953a). – **As *Liris argentata***: G. Bohart, Nye, and Hawthorn, 1970:48 (new generic assignment, Utah: Logan, onion pollinator); Alayo Dalmau,

1973:179 (in catalog of Cuban Hymenoptera), 1976:23 (in checklist of Cuban Sphecidae); R. Bohart and Menke, 1976:244 (in checklist of world Sphecidae); Kumar, Lavigne, Lloyd, and Pfadt, 1976:51 (USA: Colorado: Pawnee National Grassland); Steiner, 1976:343 (stinging behavior compared with that of *Liris aequalis*, now *beatus*, and *Liris niger*); Elliott, Kurczewski, Claflin, and Salbert, 1979:357 (Bahama Islands: Island of San Salvador); Krombein, 1979b:1618 (in catalog of North American Hymenoptera); O'Brien and Kurczewski, 1982a:60 (nesting habits, overwintering); Simon Thomas, 1984:96 (Caribbean: Island of Saint Martin); Steiner, 1984a:152 (gryllid prey never resumes normal activities after being stung, in contrast to *Lar-ra*; maxillary and labial palpi can rarely be moved after stinging); Piek and Spanjer, 1986:185 (in list of Sphecidae with known prey); Steiner, 1986:101 (references to papers on nesting habits); McCoy and Rey, 1987:94 (Florida); Frommer, 1988:94 (California: Riverside County: Deep Canyon); Elliott, 1992:45 (in list of wasps of Bahama Islands: occurring on islands of Bimini and San Salvador); Ahlstrom, 1995:107 (in checklist of insects of North Carolina); Kurczewski, 1998d:250 (pine barrens in upstate New York); Giles and Ascher, 2006:231 (New York: Black Rock Forest Preserve). – **As *Liris argentatus***: Krombein and Shanks Gingras, 1984:25 (in revision of North American *Liris*); Rust, Menke, and Miller, 1985:46 (California: Channel Islands), 52 (prey); Kurczewski and Spofford, 1987:121 (nesting habits); Spofford, Kurczewski, and Downes, 1989:259 (summary of previous records for nest parasite *Senotainia trilineata* (Wulp), a miltogrammine fly); Kurczewski and Acciavatti, 1990:60 (New York: Cayuga County); Spofford and Kurczewski, 1990:747 (nest parasite: *Senotainia trilineata* (Van der Wulp), Sarcophagidae), 1992:996 (species of miltogrammine parasites listed), 1002 (counter-cleptoparasitic habits: freeze-stop and face-off), 1005 (post-larvipositional counter-cleptoparasitic habits: abandon prey, inordinate amount of post-provisioning time in burrow); Amarante, 2002:39 (in catalog of Neotropical Crabronidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:664 (in checklist of Mexican Sphecidae); Buck, 2004:25 (in checklist of Crabronidae of Ontario, Canada); Genaro, 2004a:18 (nesting habits); Amarante, 2005a:11 (correction to his 2002 catalog); Genaro, 2006:56 (in checklist of Cuban Sphecidae and Crabronidae; also: North America, Island of Saint Martin, Venezuela, Bahamas: Island of San Salvador); Horta Vega, Pinson Domínguez, Barrientos Lozano, and Correa Sandoval, 2007: 45 (Mexico: Tamaulipas); Molina Casas and E. Reyes, 2011:224, 225 (Cuba: locality records); Ratzlaff, 2016:25 (Canada: British Columbia: from Buck, 2004); Lechner, 2021:26 (prey carriage and nest tending).

Tachytes murinus Dahlbom, 1843:132, ♀ (as *murina*, incorrect original termination). Lectotype: ♀, North America (ZMHU), designated by Krombein, 1976b:333. Synonymized with *Tachytes labiatus* by Dahlbom, 1845:469, with *Tachytes tricinctus* by F. Smith, 1856:306, and with *Liris argentatus* by Krombein, 1976:333. – Amarante, 2005a:11 (correction to his 2002 catalog). – **As *Larra murina***: Casolari and Casolari Moreno, 1980:112 (new generic assignment, specimens in M. Spinola collection, Torino); Pagliano, 2008:543 (specimens in M. Spinola collection, Torino). – **As *Notogonia murina***: Stadelmann, 1897:255 (new generic assignment, study of type).

Larrada nuda Taschenberg, 1870:5, ♀. Holotype: ♀, Venezuela: no specific locality (Halle). Synonymized with *Liris argentatus* by Krombein in R. Bohart and Menke, 1976:244. – **As *Larra nuda***: Kohl, 1885a:246 (new generic assignment, in checklist of world *Larra*); Dalla Torre, 1897:671 (in catalog of world Hymenoptera).

20. *argenticauda* (Cameron)

Notogonia chrysura Cameron, 1889a:57, ♂. Holotype or syntypes: Mexico: Sinaloa: Presidio near Mazatlán (BMNH). Synonymized with *Liris argenticauda* by R. Bohart in R. Bohart and Menke, 1976:244. – Ashmead, 1899d:249 (in checklist of North American Crabronidae). – **As *Larra chrysura***: Kohl in Dalla Torre, 1897:665 (new generic assignment, in catalog of world Hymenoptera).

Notogonia argenticauda Cameron, 1889a:58, ♂. Holotype or syntypes: ♂, Mexico: Veracruz (BMNH). – Ashmead, 1899d:249 (in checklist of North American Crabronidae). – **As *Larra argenticauda***: Kohl in Dalla Torre, 1897:663 (new generic assignment, in catalog of world Hymenoptera). – **As *Liris argenticauda***: R. Bohart and Menke, 1976:244 (new generic assignment, in checklist of world Sphecidae); Krombein, 1979b:1619 (southern Texas to Costa Rica, in catalog of North American Hymenoptera); Krombein and Shanks Gingras, 1984:38 (in revision of North American *Liris*); Amarante, 2002:40 (in catalog of Neotropical Crabronidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:664 (in checklist of

Mexican Sphecidae); Horta-Vega, Vanoye-Eligio, García-Gutiérrez, Coronado-Blanco, and Barrientos-Lozano, 2013:382 (Mexico: Tamaulipas: Ciudad Victoria: Cañón del Novillo).

21. *argentifrons* (Cameron)

Notogonia argentifrons Cameron, 1889a:55, sex not stated. Holotype or syntypes: Guatemala: Pantaleon (BMNH). – Ashmead, 1899d:249 (in checklist of North American Crabronidae). – **As *Larra argentifrons***: Kohl in Dalla Torre, 1897:663 (new generic assignment, in catalog of world Hymenoptera)– **As *Liris argentifrons***: R. Bohart and Menke, 1976:244 (new generic assignment, in checklist of world Sphecidae); Amarante, 2002:40 (in catalog of Neotropical Crabronidae).

22. *asymphonus* Krombein and Shanks Gingras

Liris asymphonus Krombein and Shanks Gingras, 1984:61. Holotype: ♂, Mexico: Morelos: Cuernavaca (USNM). – Amarante, 2002:40 (in catalog of Neotropical Crabronidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:664 (in checklist of Mexican Sphecidae).

23. *aterrimus* (F. Smith)

Larrada aterrima F. Smith, 1856:282, ♀. Holotype or syntypes: ♀, South Africa: Western Cape Province: Cape of Good Hope (BMNH). – Gribodo, 1880:402 (Tunisia, identification tentative). – **As *Larra aterrima***: Kohl, 1885a:241 (new generic assignment, in checklist of world *Larra*); Dalla Torre, 1897:664 (new generic assignment, in catalog of world Hymenoptera). – **As *Notogonia aterrima***: Cameron, 1910b:130 (new generic assignment, South Africa: Transvaal: Pietersburg, now Limpopo: Polokwane). – **As *Liris aterrima***: R. Bohart and Menke, 1976:244 (new generic assignment, in checklist of world Sphecidae).

24. *atratus* (Spinola)

Larra atrata Spinola, 1805:12, sex not stated. Lectotype: ♀, Italy: Genova (Torino), designated by de Beaumont, 1952e:43. – Kirchner, 1867:216 (in catalog of European Hymenoptera). – **As *Tachytes atrata***: Lucas, 1849:248 (new generic assignment, Algeria: La Calle, redescription); Acloque, 1897:93 (in Sphecid Fauna of France and Algeria); de Gaulle, 1908:121 (in catalog of French Hymenoptera). – **As *Larrada atrata***: F. Smith, 1856:275 (new generic assignment, in catalog of Hymenoptera in British Museum); Dours, 1874:140 (in catalog of Hymenoptera of France); Girard, 1879:954 (example of *Larrada*). – **As *Liris atrata***: de Beaumont, 1952c:189 (new generic assignment, Algeria: Hoggar), 1955a:170 (Morocco), 1956a:195 (Libya; Chad: Tibesti), 1956d:3 (Cabo Verde Islands); Morel, Nouvel, and Ribaut, 1956:338 (France: Département des Pyrénées-Orientales); Grandi, 1957:389 (Algeria: El Kantara; Italy: Sardegna); Nouvel and Ribaut, 1958:12 (France: Pyrénées-Orientales: Banyuls-sur-Mer); Suárez in Giner Marí, 1959:400 (*Liris atrata* is the correct name for *Notogonia nigrita* in Giner Marí, 1959:388); Suárez, 1959:56 (Spain: Almería Province); de Beaumont, 1960b:237 (Libya), 1961f:231 (in revision of Mediterranean *Liris*), 1962b:25 (Spain); Ceballos, 1964:89 (in supplement to catalog of Spanish Sphecidae); Diniz, 1964a:7 (Portugal: Abrunhosa, Cascais); de Beaumont, 1965a:45 (Greece), 1966:212 (Egypt: south of Abd el Rahman near Alexandria), 1967a:330 (Turkey), 1968a:261 (Canary Islands: Fuerteventura, Gran Canaria, Tenerife); Simon Thomas, 1969a:120 (Canary Islands: Tenerife); de Beaumont, 1970a:399 (Afghanistan); Balthasar, 1972:300 (in Sphecid Fauna of Czechoslovakia: can be expected in the country); de Beaumont, Bytinski-Salz and Pulawski, 1973:4 (Israel); Erlandsson, 1974:70 (Spain); R. Bohart and Menke, 1976:244 (in checklist of world Sphecidae); Báez and Ortega, 1978:192 (Canary Islands); Erlandsson, 1978a:205 (Canary Islands); Kazenas, 1978b:103, 104 (in key to Sphecidae of Kazakhstan and Central Asia); Pulawski, 1978:214 (in key to Sphecidae of European part of USSR); Wolf, 1980:72 (Canary Islands); Gayubo and Tormos, 1984:13 (Spain: Valencia); Gayubo and Tormos, 1986a:12 (Spain: Castellón de la Plana); Tormos and Jiménez, 1987a:124 (Spain: Valencia); Asís and Jiménez, 1988:270 (Spain: Castellón Province); Pagliano, 1990:101 (in catalog of Italian Sphecidae); Guichard, 1991a:339 (Jordan); Hohmann, La Roche, Ortega, and Barquín, 1993:217 (detailed locality records from Canary Islands); Simon Thomas and Wiering, 1993:404 (Cape Verde Islands: Island of Santiago); Roche and Zalut, 1994:115 (Egypt: Sinai Peninsula); Smit, 2000:175 (Madeira); Kazenas, 2001:25 (in checklist of Sphecidae of Kazakhstan and Central Asia); Ebrahimi, 2006:1 (Iran), 2014:37 (Iran: Tehrān: Varāmin: Ali-Ābād); Medetov, Embergenov, Kholmatov, Elmurodova, Rakhimov, and Tajibaeva, 2024:420 (Uzbekistan: distribution). – **As *Liris atratus***: Torregrosa, Gayubo, Tormos, and Asís, 1993:18 (Spain: Alicante Province); Gayubo and Borsato, 1994:206 (Italy: Sicilia); Tormos, Asís, and Gayubo,

- 1994:188, 203 (Spain: Albacete Province); Negrisolo *in* Minelli, Ruffo, and La Posta, 1995b:9 (in catalog of Italian fauna); K. Schmidt and Bitsch *in* Bitsch et al., 2001:201 (in Sphecidae Fauna of Western Europe); Drewes, 2003:139 (Spain: Tarragona); Pagliano and Negrisolo, 2005:350 (in Sphecidae Fauna of Italy); Roche, 2007a:66 (in checklist of Egyptian Crabronidae), 2007b:4 (in checklist of Egyptian Ampulicidae, Sphecidae, and Crabronidae); Ebrahimi, 2008:95 (first record from Iran: Tehran: Varamin, Aliabad); T. Li, Cai, and Q. Li, 2009a:117, 119 (in key to Palearctic *Liris*); Baldock, 2014:355 (Spain: Island of Mallorca); Bitsch, 2014:403 (France: Landes: Huchet); Dunford, Turbyville, and Leavengood, 2014:10 (listed as medically important in Afghanistan); Schmid-Egger, 2014:575 (United Arab Emirates), 576 (color photographs of female); Augul, 2015:283 (in revision of *Liris* of Iraq); Antropov, 2017b:237 (in catalog of Crabroninae of Russia); Jahantigh, Rakhshani, Mokhtari, and Ramroodi, 2017:64 (Iran: known from Tehran Province); Gadallah, 2020b:37 (in list of aculeate wasps of Arabian Peninsula); Gros, 2020:402 (nesting habits); Rezaei, Fallahzadeh, Dousti, and Saghaei, 2020b:12 (Iran: Fars: Kavar at 29°11'52"N 52°42'06"E); Ben Khedher, Yildirim, and Braham, 2021a:59 (Tunisia: Mahdia and Sidi Alouane governorates); Cross, Baldock, and Wood, 2021:46 (in catalog of Sphecidae *sensu lato* of Portugal); Kaplan and Yildirim, 2021:69 (in catalog of Crabronidae of Turkey); K. Schmidt, Straka, and Bitsch *in* Bitsch, Antropov, Gayubo, Leclercq, Schmid-Egger, K. Schmidt, and Straka, 2021:259 (in revision of Sphecidae *sensu lato* of Europe); Kaplan and Yildirim, 2023:1685 (in checklist of Sphecidae *sensu lato* of Turkey); Gülmez, Çubuk, and Can, 2025:169 (Turkey: Çanakkale: Kelkit River Valley).
- Larra micans* Spinola, 1806:14. Substitute name for *Larra atrata* Spinola, 1805. – Casolari and Casolari Moreno, 1980:112 (specimens in M. Spinola collection, Torino); Pagliano, 2008:542, 543, 544 (specimens in M. Spinola collection, Torino). – **As *Liris micans*:** Ljubomirov and Yildirim, 2008:192 (new generic assignment, as valid name for *Liris atrata*, in catalog of Crabronidae of Turkey); Ljubomirov, 2008:256 (known from La Palma, Canary Islands); González, Gayubo, Asís, and Tormos, 2009:623 (Spain: Salamanca and Zamora provinces: Arribes del Duero Natural Park); Bitsch, 2014:403 (record from Spain by Gonzales et al., 2009 noted); Yıldırım, Ljubomirov, and Lelej, 2014:11 (distribution in Turkey by biogeographic provinces); Koçak and Kemal, 2015:146 (in checklist of Hymenoptera of Turkey), 2023:1685 (in checklist of Sphecidae *sensu lato* of Turkey).
- Tachytes nigrita* Lepeletier de Saint Fargeau, 1845:241, ♀, ♂. Syntypes: Algeria: Oran (MNHN). Synonymized with *Liris atrata* by de Beaumont, 1952e:42. – Brullé, 1839:91 (Canary Islands); Lucas, 1849:247 (Algeria: Alger, Bône, Constantine, Oran); Radoszkowski, 1876b:135 (Egypt); Rizzardi, 1896:14 (Libya: Tripolitania: Misratah); Acloque, 1897:93 (in Sphecidae Fauna of France and Algeria). – **As *Larrada nigrita*:** F. Smith, 1856:280 (new generic assignment, in catalog of Hymenoptera in British Museum); Walker, 1871:21 (Egypt: Cairo: Sinai: Wadi Feiran, Mount Sinai). – **As *Larra nigrita*:** Kohl, 1885a:246 (new generic assignment, in checklist of world *Larra*); Dalla Torre, 1897:671 (in catalog of world Hymenoptera); Mantero, 1915:326 (Libya, subgenus *Notogonia*); Coulon, 1925:121 (Italy, Canary Islands, Tunisia). – **As *Notogonia nigrita*:** Kohl, 1885a:253 (new generic assignment, in revision of Palearctic Larrinae); Schletterer, 1889b:1128 (Canary Islands: Island of Santa Cruz); Mocsáry, 1897:77 (not found in Kingdom of Hungary); Antiga and Bofill, 1904:10 (Spain: Cataluña Province); W. Schulz, 1904b:102 (Spain: Murcia), 1905b:45 (Algeria: Biskra), 68 (Tunisia: Gafsa); Graeffe, 1906:455 (Tunisia: Tunis area); von Schulthess, 1909:441 (Libya: Benghazi, Tripoli); Mercet, 1910b:165 (listed from Spain); Morice, 1911:96 (Algeria: Alger, Biskra); Ferton, 1912a:359 (Algeria, hunting habits); Smits van Burgst, 1913a:319 and 1913b:6 (Tunisia: no specific locality); Storey, 1916:110 (Egypt: Maadi, Mariut); R. Turner, 1917e:195 (Pakistan: Punjab: Multan); Morice, 1921:824 (Iraq); Picard, 1922:27 (first record from France: Alpes-Maritimes: Cannes); Ferton, 1923:123 (preying on gryllids, habits identical to these of *Notogonia pompiliformis*, now *Liris niger*); Gribodo, 1924b:51 (Libya: Chersa, Derna); Berland, 1925d:113 (in Sphecidae Fauna of France); Coulon, 1925:121 (in Elbeuf Museum: no locality); von Schulthess, 1926b:213 (Tunisia, Libya); Eidmann, 1927:33 (Spain: Balearic Islands); von Schulthess, 1927:299 (Iran: Bushehr); Berland, 1928b:177 (France: Pyrénées-Orientales: Banyuls-sur-Mer); Richards, 1928a:360 (in revision of Mediterranean species), 1928b:219 (in key to French *Notogonia*); Guiglia, 1929:396 (Libya: Cirenaica: Bengasi, Cirene, and oasis Giarabub); Kruger, 1929a:21 and 1929b:56 (Libya: Cyrenaica: es Scegga, now Shatib ash Shaqqah); Roth, 1930:83 (Algeria); Dusmet y Alonso, 1931:7 (Portugal: Soure); Guiglia, 1932d:473 (Libya: Cufra); Gussakovskij, 1933b:277 (Iran, Russia: Sarepta, Turkmenistan, Uzbekistan); Nadig, 1933:85 (Morocco); Roth, 1934b:190 (Algeria); Giner Marí, 1943a:126 (in Sphecidae Fauna of Spain), 1945b:362 (Morocco: Western Sahara), 1945e:233 (Western Sahara); Deleurance, 1946b:63 (prey: gryllids), 67 (France: Bouche-du-

Rhône: Camargue: Bois des Rièges); Giner Marí, 1947:25 (Western Sahara); 1959:388 (Morocco: Rabat); Lomholdt, 1975a:10 (Madeira). – **As *Notogonidea nigrita***: Giner Marí, 1934:133 (new generic assignment, Spain); Berland, 1939:85 (Western Sahara: Villa Cisneros), 1943a:314 (Western Sahara: Villa-Cisneros); Abdu and Shaumar, 1985:229 (Qatar: Al Shahaniyah, Doha). – **As *Leptolarra nigrita***: Guiglia, 1936:6 (new generic assignment, Libya: Fezzan: Gatron, and El Gïof in Cufra oasis); 1937:188 (Libya: Cyrenaica: Marada, Mechili); de Beaumont, 1940a:18 (Egypt); de Andrade, 1949:13 (Portugal); Diniz, 1959:29 (Portugal: Cascais, Lisboa, Mitra, Soure). – **As *Motes nigrita***: Guiglia, 1940a:289 (new generic assignment, Libya: Hun, Zella), 1942b:233 (Libya); Derwesh, 1965:70 (Iraq: no specific locality). – **As *Liris nigrita***: de Beaumont, 1950d:14 (new generic assignment, Egypt: Siwa oasis), 1950f:405 (Algeria), 1953a:175 (Mauritania), 1954b:3 (Canary Islands); Grandi, 1954:238 (Algeria: Biskra); Ceballos, 1956:375 (in catalog of Hymenoptera of Spain); Báez and Ortega, 1978:192 (Canary Islands); Al-Houty, 1989:160 (Kuwait: Sulabiya).

Notogonia pharaonum Kohl, 1906a:220, ♂. Holotype: ♂, Egypt: Cairo (NHMW). Synonymized with *Notogonia nigrita* by Richards, 1928a:360, synonymy confirmed by de Beaumont, 1961f:231. – von Schulthess, 1926b:214 (Libya: Benghazi); Guiglia, 1934b:302 (Libya: bibliography and summary of locality records); de Beaumont, 1940a:18 (Egypt).

Larra sp.: Groh, 1982:260 (Cape Verde Islands), corrected to *Liris atratus* by Simon Thomas and Wiering, 1993:404.

25. *atripennis* Tsuneki

Liris atripennis Tsuneki, 1982a:27, ♀. Holotype: ♀, Papua New Guinea: New Ireland: Lemkamin (ZMUC). – Tsuneki, 1982a:18 (in key to *Liris* of South Pacific islands).

26. *atropos* Gribodo

Liris atropos Gribodo, 1894c:134, ♀ (as *Atropos*, incorrect original capitalization). Holotype: ♀, Mozambique: Magnarra River (Mus. Zool. Univ. Bologna). – Arnold, 1923b:2253 (in revision of southern African Sphecidae), 1930:7 (in checklist of Afrotropical Sphecidae), 1935a:498 (South Africa: Kalahari); de Beaumont, 1967b:508 (Namibia); R. Bohart and Menke, 1976:244 (in checklist of world Sphecidae); Tommasini and Marini, 1984:41 (type depository); Pennati and Mariotti, 2015:24 (in list of Hymenoptera described by G. Gribodo). – **As *Larra atropos***: Kohl in Dalla Torre, 1897:664 (new generic assignment, in catalog of world Hymenoptera).

Liris africana R. Turner, 1917f:295, ♀. Holotype or syntypes: ♀, Zimbabwe: Bulawayo (BMNH or SAM?). Synonymized with *Liris atropos* by Arnold, 1923b:253.

27. *atrox* Arnold

Liris atrox Arnold, 1959:330, ♀. Holotype: ♀, Zambia: Abercorn, now Mbala (BMNH). – R. Bohart and Menke, 1976:244 (in checklist of world Sphecidae).

28. *aurarius* Tsuneki

Liris aurarius Tsuneki, 1983c:9, ♂ (subgenus *Liris* s. s.). Holotype: ♂, Papua New Guinea: Morobe Province: Satterberg, correctly Sattelberg (TMB).

29. *aureohirtus* Tsuneki

Liris aureohirtus Tsuneki, 1982a:30, ♂ (as *aureohirta*, incorrect original termination). Holotype: ♂, Papua New Guinea: New Britain: Yalom (ZMUC). – Tsuneki, 1982:17 (in key to *Liris* of South Pacific islands).

ssp. pallidulus Tsuneki

Liris aureohirtus pallidulus Tsuneki, 1982a:30, ♂ (as *aureohirta pallidula*, incorrect original termination). Holotype: ♂, Papua New Guinea: New Ireland: Lemkamin (ZMUC). – Tsuneki, 1982a:17 (in key to *Liris* of South Pacific islands).

30. *aurifrons* (F. Smith)

Larrada aurifrons F. Smith, 1858b:16, . Holotype: ♂, Indonesia: Sulawesi: no specific locality (OXUM). – F. Smith, 1863b:135 (known from Sulawesi). – **As *Larra aurifrons***: Kohl, 1885a:242 (new generic assignment, in checklist of world *Larra*); Dalla Torre, 1897:664 (in catalog of world Hymenoptera). – **As *Liris aurifrons***: Pulawski, 1975a:318 (new generic assignment, di-

agnostic characters); R. Bohart and Menke, 1976:244 (in checklist of world Sphecidae); Mawadda and Girish Kumar, 2023:113 (in checklist of Crabroninae of Northern India).

Liris nitidus Cameron, 1913:113, ♀. Holotype: ♀, India: Uttar Pradesh: Dehra Dun (BMNH). Synonymized with *Liris aurifrons* by Pulawski, 1975a:318. – Ramakrishna Aiyar, 1916:553 (in catalog of Indian aculeates described after Bingham, 1897).

31. *aurulentus* (Fabricius)

Sphex aurulentus Fabricius, 1787:274, sex not stated (as *aurulenta*, incorrect original termination). Holotype or syntypes: China: no specific locality (depository unknown). – Gmelin, 1790:2725 (redescription); Fabricius, 1796:155 (in Index to his Entomologia Systematica, 1793). – **As *Larrada aurulenta***: F. Smith, 1856:276 (new generic assignment, in catalog of Hymenoptera in British Museum), 1858b:16 (Indonesia: Sulawesi), 1860b:123 (Indonesia: Moluccas: Batjan), 1863a:34 (Indonesia), 1863b:135 (known from China, India, Philippines, Borneo, Sumatra, Java, Batjan, Sulawesi, Buru, and Africa); Taschenberg, 1870:7 (Java); F. Smith, 1871a:363 (in catalog of Oriental Aculeata), 1878c:16 (China: Xinjiang: Yangi Hissar); Gribodo, 1884d:361 (Burma: Minhla); Magretti, 1884c:584 (Eritrea: Khor Cheru, record erroneous for geographic regions). – **As *Tachytes aurulenta***: Lepeletier de Saint Fargeau, 1845:247 (new generic assignment, in revision of world Hymenoptera). – **As *Larra aurulenta***: Cresson, 1862:237 (new generic assignment, in catalog of North American Hymenoptera); Bradley, 1957:44 (Lepeletier de Saint Fargeau's specimens in Torino); Casolari and Casolari Moreno, 1980:112 and 113 (specimens in M. Spinola collection, Torino); Pagliano, 2008:545 (specimens in M. Spinola collection, Torino), 2011:112 (specimens in M. Spinola collection, Torino, are *Tachytes* sp.). – **As *Liris aurulenta***: van der Vecht, 1961a:19 (new generic assignment, discussion of type material); Tsuneki, 1963i:102 (Malaysia: Parit Buntar), 1964l:62 (in key to Larrinae of Japan and Korea); Baltazar, 1966:333 (in catalog of Hymenoptera of Philippines); Tsuneki, 1966g:1 (Taiwan, Ryukyu Islands), 1967b:8, 13 (in key to Larrinae of Taiwan), 27 (Taiwan), 1967i:388 (Taiwan); T. Iida, 1971:26 (description of larva); Okumura, 1971:22 (Japan: Ryukyu Islands: Amami-Oshima Islands; nesting habits); Haneda, 1971b:29 (Taiwan); Tsuneki, 1971h:2 (Taiwan); Haneda, 1972a:3 (Taiwan); Tano, 1972:23 (Japan: Ryukyu Islands); Murota, 1973a:101 (Ryukyu Islands: Amami-Oshima Islands); Murota, 1973b:118 (Taiwan); Tsuneki, 1974b:599 (Thailand); Bohart and Menke, 1976:244 (in checklist of world Sphecidae); Tsuneki, 1976b:59 (Philippines), 1977c:22 (Taiwan; variation in ♂ clypeus), 1977j:268 (Taiwan), 1982a:10 (in key to *Liris* of South Pacific islands); Tsuneki, 1982g:58 (known from the Ryukyu archipelago), 1983c:7 (New Guinea); Wu and Zhou, 1996a:80 (in revision in Economic Insect Fauna of China); Porter, Stange, and Wang, 1999:7 (in checklist of Sphecidae of Taiwan); Melo, 2000:105 (one nest occupied by more than one female); Ohl and Linde, 2003:150 (number of ovarioles); Terayama, 2004a:5 (Japan: Volcano Islands: Iwo islands). – **As *Liris aurulentus***: Yamane, Ikudome, and Terayama, 1999:513 (in Identification Guide to Crabronidae of Nansei = Ryukyu Islands, Japan); Hua, 2006:280 (in list of Chinese insects, geographic distribution); T. Li, Cai, and Q. Li, 2007:418, 421 (in key to *Liris* of China), 2009a:117 (in key to Palearctic *Liris*); Takahashi, 2010:19 (Japan: in list of Hymenoptera of Ogasawara = Bonin islands); Haneda, 2011:44 (Philippines: Palawan: Aborlan and Calaucasan); Najeer-E-Noor and Begum, 2020:89 (blunt barbs on stinger dorsolateral surface); Terayama, 2020:18 (Micronesia: Palau); Yoshida, Inahata, and Murao, 2020:62 (Japan: Amami Islands); Pham and Antropov, 2021:317 (in key to *Liris* of Vietnam), 318 (first record from Vietnam: many localities); Mawadda and Girish Kumar, 2023:113 (in checklist of Crabroninae of Northern India); Barthélémy and Guénard, 2025:22 (China: Hong Kong).

Sphex auratus Fabricius, 1787:276, sex not stated, junior primary homonym of *Sphex auratus* Linnaeus, 1758, a chrysidid. Holotype: ♀, India: no specific locality (ZMUC). Synonymized with *Sphex aurulentus* by Fabricius, 1793:213. – Fabricius, 1793:213 (redescription), 1796:155 (in Index to his Entomologia Systematica, 1793); Turton, 1801:491 (redescription). – **As *Pompilus auratus***: Fabricius, 1798:250 (new generic assignment, redescription). – **As *Lyrops auratus***: Guérin-Ménéville, 1844:440 (new generic assignment, redescription). – **As *Larra aurata***: Jurine, 1807:145 (new generic assignment, in checklist of European *Larra*); Kohl, 1885a:241 (in checklist of world *Larra*); Dalla Torre, 1897:664 (in catalog of world Hymenoptera); R. Brown, 1906:687 (in catalog of Philippine Hymenoptera); Casolari and Casolari Moreno, 1980:112 and 113 (specimens in M. Spinola collection, Torino); Pagliano, 2008:545 (specimens in M. Spinola collection, Torino). – **As *Notogonia aurata***: Rothney, 1903:104 (new generic assignment, India: West Bengal: Barrackpore). – **As *Liris aurata***: Fabricius, 1804:228 (new generic assignment, redescription); Dahlbom, 1843:135 (in revision of Sphecidae and Pompilidae),

1845:XXIII (type specimens are *Liris*), 471 (in key to World *Liris* s.s.); Cameron, 1889c:125 (India: Calcutta District, as *auratus*); Kohl, 1892:227 and 229 (in key to world *Liris* s.s.); Bingham, 1896a:44 (Sri Lanka: Pundaluoya), 1897:206 (redescription), 1905:43 (Malaysia: Biserat, Mabek); Cameron, 1905k:64 (Java, as *auratus*), 1906b:57 (New Guinea: Western Papua: Humboldt Bay); Paiva, 1907:15 (India: West Bengal: Siliguri); Maxwell-Lefroy, 1909:202 (India: found in flower gardens and human habitations); Nurse, 1914:444 (India: Assam: Sadiya, Kobo); F. Williams, 1919d:138 (Philippines: Luzon: Los Baños: nesting habits); Dover, 1926:234 (China: Hong Kong); F. Williams, 1928a:82 (Philippines, in revision of *Liris* of Philippines); von Schulthess, 1932:42 (Borneo: Samarinda); Richards, 1935a:154 (incorrectly claimed that *Liris auratus* was the type species of *Liris*); Yasumatsu, 1937b:129 (Mariana Islands: Saipan), 1941:45 (Mariana Islands); Swezey, 1942:184 (Guam); Tsuneki, 1962a:5 (Japan: Ryukyu Islands: Island of Amami-Oshima; as *aurata* subsp.), 1983c:28 (in list of *Liris* recorded from New Guinea).

Tachytes opulentus Lepeletier de Saint Fargeau, 1845:246, ♀, ♂ (as *opulenta*, incorrect original termination). Syntypes: Indonesia: Java: no specific locality (M. Spinola collection, Torino). Synonymized with *Larrada aurulenta* by F. Smith, 1856:276. – Bradley, 1957:44 (Lepeletier de Saint Fargeau's specimens in Torino). – **As *Liris opulenta***: Weber, 1947:22 (new generic assignment, first records from Hawaiian Islands: Oahu); Krombein, 1949b:383 (in key to Sphecidae of Micronesia), 397 (Marshall, Mariana, and Caroline Islands); Yoshimoto, 1960:332 (Hawaiian Islands: Oahu); Iwata and Yoshikawa, 1961:399 (Thailand), 405 (prey), 406 (ovary structure); Iwata, 1964b:372 (nesting habits in Thailand); Iwata, 1965:107 (number of oocytes).

Tachytes auropilosus Rohwer, 1911a:484, ♀. Holotype: ♀, Taiwan: Horisha (USNM). Synonymized with *Liris aurulentus* by Tsuneki, 1967b:27 and 42. – Tsuneki, 1966g:14 (discussion of identity).

Tachytes sinensis var. *purpureipennis* Matsumura and Uchida, 1926:42, ♀, ♂. Syntypes: Japan: Okinawa: Okinawa-honto, Ishigakijima (Hokkaido Univ., Sapporo). Synonymized with *Liris aurulentus* by Tsuneki, 1967b:27 and 42. – **As *Tachytes sinensis purpureipennis***: Tsuneki, 1967b:42 (new generic assignment, new status, discussion of identity).

As *Larra aurata*: Pagliano, 2011a:112 (specimens in coll. Spinola, Torino, are *Liris aurulentus*?).

32. *australis* (de Saussure)

Tachytes australis de Saussure, 1854:19, ♀. Holotype or syntypes: New Holland, now Australia: no specific locality (MNHN). – Dalla Torre, 1897:687 (in catalog of world Hymenoptera); R. Turner, 1910a:348 (in key to Australian *Tachytes*). – **As *Larrada australis***: F. Smith, 1856:285 (new generic assignment, in catalog of Hymenoptera in British Museum); de Saussure, 1863:69 (transfer to *Larrada* recorded); Rawes Whittell, 1883:31 (usurping nests of *Sceliphron laetum*, identification certainly in error); Froggatt, 1892:218 (in catalog of Australian Hymenoptera). – **As *Larra australis***: R. Turner, 1908:474 (new generic assignment). – **As *Notogonia australis***: R. Turner, 1916c:306 (new generic assignment), 1916e:281 (in revision of Australian *Liris*); Riek, 1970:943 (in Insect Fauna of Australia); K. Walker, Naumann, Austin, Taylor, and Cardale, 1992:48 (in catalog of insects of Tasmania). – **As *Liris australis***: R. Bohart and Menke, 1976:244 (tentative new generic assignment, in checklist of world Sphecidae); Cardale, 1985:236 (in catalog of Australian Sphecidae); K. Walker, Naumann, Austin, Taylor, and Cardale, 1992:48 (in catalog of insects of Tasmania).

33. *avellanipes* (de Saussure)

Notogonia avellanipes de Saussure, 1890: pl. 19, fig. 8. Holotype: ♀, illustrated specimen, Madagascar: no specific locality (MHNG). – **As *Larra avellanipes***: Kohl in Dalla Torre, 1897:664 (new generic assignment, in catalog of world Hymenoptera). – **As *Liris avellanipes***: R. Bohart and Menke, 1976:244 (new generic assignment, in checklist of world Sphecidae); Pulawski, 2003b:796 (in checklist of Malagasy Sphecidae); Madl, 2014a:967 (in catalog of Ampulicidae, Crabronidae, and Sphecidae of Madagascar, with synonymy and locality records, as *avellanipes avellanipes*).

Notogonia avellanipes de Saussure, 1891:261, ♀. Objective synonym of *Notogonia avellanipes* de Saussure, 1890. Lectotype: ♀, Madagascar: no specific locality (MHNG), unnecessary designation by Leclercq, 1961d:112. – de Saussure, 1892:508 (Madagascar; redescription); Arnold, 1945:122 (in revision of Madagascar Sphecidae). – **As *Motes avellanipes***: Leclercq, 1960a:97 (new generic assignment, Madagascar), 1961d:111 (Madagascar).

ssp. *flavivena* Arnold

Liris avellanipes race *flavivena* Arnold, 1947:156, ♀. Holotype: ♀, Zimbabwe: Rhodesdale (SAM). – **As *Liris avellanipes flavivena***: R. Bohart and Menke, 1976:248 (new status, in checklist of world Sphecidae).

34. *baguionis* Tsuneki

Liris baguionis Tsuneki, 1983a:13, ♀. Holotype: ♀, Philippines: Luzon: City of Baguio (USNM). – Tsuneki, 1983a:45 (in key to *Liris* of Philippines); Nuhn and Menke, 1994:27 (holotype not transferred to USNM, possibly returned to T. Murota, the collector); Menke, 1995:14 (type still in K. Tsuneki collection); Tano, 1995:45 (holotype in K. Tsuneki collection), 2020:26 (holotype in USNM).

35. *bakeri* (F. Williams)

Notogonidea bakeri F. Williams, 1928a:74, ♀, ♂. Holotype: ♀, Philippines; Samar: no specific locality (Bishop Mus.). – **As *Motes bakeri***: – Baltazar, 1966:330 (new generic assignment, in catalog of Hymenoptera of Philippines). – **As *Liris bakeri***: R. Bohart and Menke, 1976:244 new generic assignment, in checklist of world Sphecidae; Tsuneki, 1982a:18 (in key to *Liris* of South Pacific islands), 20 (Papua New Guinea: Bismarck Archipelago, redescription), 1983a:30 (Philippines, taxonomic comments), 47, 48 (in key to *Liris* of Philippines).

36. *banoensis* Tsuneki

Liris robustoides F. Williams, 1928:77, ♂ only, corrected to *Liris banoensis* by Tsuneki, 1983a:109.

Liris banoensis Tsuneki, 1983a:109, ♂. Holotype: ♂, Philippines: Los Baños, allotype of *Liris robustoides* F. Williams (Bishop Mus.).

37. *basilissa* (R. Turner)

Notogonia basilissa R. Turner, 1908:476, ♀. Holotype or syntypes: ♀, Australia: Queensland: Mackay (BMNH). – R. Turner, 1916e:284 (in revision of Australian *Liris*). – **As *Liris basilissa***: R. Bohart and Menke, 1976:244 (new generic assignment, in checklist of world Sphecidae); Cardale, 1985:235 (in catalog of Australian Sphecidae).

38. *beatus* (Cameron)

Notogonia violaceipennis Cameron, 1889a:51, ♀. Holotype or syntypes: ♀, Panama: Volcan de Chiriquí (BMNH). Synonymized with *Liris beata* by Krombein, 1979:1619. – Ashmead, 1899d:249 (in checklist of North American Crabronidae). – **As *Larra violaceipennis***: Kohl in Dalla Torre, 1897:675 (new generic assignment, in catalog of world Hymenoptera). – **As *Liris violaceipennis***: R. Bohart and Menke, 1976:248 (new generic assignment, in checklist of world Sphecidae).

Notogonia montezuma Cameron, 1889a:52, [♀]. Holotype or syntypes: ♀: Mexico: northern Sonora: no specific locality (BMNH). Synonymized with *Liris beatus* by Krombein, 1979:1619. – Ashmead, 1899d:249 (in checklist of North American Crabronidae). – **As *Larra montezuma***: Kohl in Dalla Torre, 1897:670 (new generic assignment, in catalog of world Hymenoptera). – **As *Liris montezuma***: R. Bohart and Menke, 1976:244 (new generic assignment, as tentative synonym of *Liris aequalis*).

Notogonia truncata Cameron, 1889a:54, ♀, ?♂, junior secondary homonym of *Liris truncatus* (F. Smith, 1856). Holotype: ♀, Costa Rica: Cache (BMNH). Synonymized with *Liris beatus* by Krombein, 1979:1619. – Ashmead, 1899d:249 (in checklist of North American Crabronidae).

Notogonia beata Cameron, 1889a:56, [♂]. Holotype or syntypes: ♂: Mexico: Veracruz: Orizaba (BMNH). – Ashmead, 1899d:249 (in checklist of North American Crabronidae). – **As *Larra beata***: Kohl in Dalla Torre, 1897:664 (new generic assignment, in catalog of world Hymenoptera). – **As *Liris beata***: R. Bohart and Menke, 1976:244 (new generic assignment, in checklist of world Sphecidae); Krombein, 1979b:1619 (in catalog of North American Hymenoptera); Ahlstrom, 1995:108 (in checklist of insects of North Carolina). – **As *Liris beatus***: Krombein and Shanks Gingras, 1984:40 (in revision of North American *Liris*); Rust, Menke, and Miller, 1985:46 (California: Channel Islands); Parks, 1986:34 (California: Torrey Pine State Reserve); Amarante, 2002:40 (in catalog of Neotropical Crabronidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:664 (in checklist of Mexican Sphecidae); Buck, 2004:25 (in checklist of Crabronidae of Ontario, Canada), 29 (distribution within Ontario), 44 (first record from Canada: Ontario: Pinery Provincial Park); Horta Vega, Pinson

Domínguez, Barrientos Lozano, and Correa Sandoval, 2007: 45 (Mexico: Tamaulipas); Horta-Vega, Vanoye-Eligio, García-Gutiérrez, Coronado-Blanco, and Barrientos-Lozano, 2013:382 (Mexico: Tamaulipas: Ciudad Victoria: Cañón del Novillo).

Notogonia nigripennis W. Fox, 1894a:486, ♀, Holotype: ♀: New York (ANSP), junior primary homonym of *Notogonia nigripennis* Cameron, 1889. Synonymized with *Motes aequalis* by G. Bohart in Muesebeck, Krombein, and Townes, 1951:954, and with *Liris beata* by Krombein, 1979:1619. – Ashmead, 1899d:249 (in checklist of North American Crabronidae); J. Smith, 1900:517 (in list of insects of New Jersey: “probably in New Jersey”); Cresson, 1928:45 (holotype in ANSP); Amarante, 2005a:11 (correction to his 2002 catalog). – **As *Notogonidea nigripennis***: J.Ch. Bradley, 1928:1009 (new generic assignment, in catalog of Hymenoptera of New York); Brimley, 1938:442 (statewide in North Carolina). – **As *Motes nigripennis***: Pate, 1943i:200 (new generic assignment, recorded from USA).

Notogonia aequalis W. Fox, 1894a:486, ♀, ♂. Lectotype: ♀, USA: New York (ANSP), designated by Cresson, 1928:43. Synonymized with *Liris beata* by Krombein, 1979:1619. – Ashmead, 1899d:249 (in checklist of North American Crabronidae); J. Smith, 1900:517 (in list of insects of New Jersey: “should occur in New Jersey”). – **As *Larra aequalis***: Kohl in Dalla Torre, 1897:661 (new generic assignment, in catalog of world Hymenoptera). – **As *Motes aequalis***: Pate, 1943i:200 (new generic assignment, recorded from USA); G. Bohart in Muesebeck, Krombein, and Townes, 1951:954 (as new generic assignment, in catalog of North American Hymenoptera); Krombein, 1953a:331 (North Carolina), 1954b:16 and 17 (in key to North American *Motes*); Krombein and Evans, 1955:231 (Florida: Arcadia); Krombein, 1958f:188 (in supplement to catalog of North American Hymenoptera; prey: nymph of *Acheta assimilis* F., a gryllid); L. Davis, 1978:217 (North Carolina: Kill Devil Hills, data from Krombein, 1953a). – **As *Liris aequalis***: R. Bohart and Menke, 1976:244 (new generic assignment, as tentative synonym of *Liris beata*); Kurczewski, 1976:329 (male territorial habits); Steiner, 1976:343 (stinging behavior compared with that of *Liris argentatus* and *Liris niger*), 1984a:152 (gryllid prey never resumes normal activities after being stung, in contrast to *Larra*; maxillary and labial palpi can rarely be moved after stinging); Piek and Spanjer, 1986:185 (in list of Sphecidae with known prey); Steiner, 1986:101 (references to papers on nesting habits); Frommer, 1988:94 (California: Riverside County: Deep Canyon); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:664 (in checklist of Mexican Sphecidae).

Larra nigripennata Dalla Torre, 1897:670. Substitute name for *Larra nigripennis* (W. Fox), junior secondary homonym of *Larra nigripennis* (Cameron, 1889) = *Liris nigripennis* (Cameron). Synonymized with *Motes aequalis* by G.E. Bohart in Muesebeck, Krombein, and Townes, 1951:954, and with *Liris beata* by Krombein, 1979:1619.

Larra truncatula Dalla Torre, 1897:675. Substitute name for *Larra truncata* (Cameron, 1889), junior secondary homonym of *Larra truncata* (F. Smith, 1856) = *Liris truncata* (F. Smith). Synonymized with *Liris beatus* by Krombein, 1979:1619. – **As *Liris truncatulus***: R. Bohart and Menke, 1976:248 (new generic assignment, in checklist of world Sphecidae, as *truncatula*); Hanson and Menke, 1995:639 (known from Costa Rica).

Liris nigripennis occidentalis Viereck, 1903b:731, ♀. Holotype: ♀, USA: California or New Mexico: no specific locality (ANSP). Synonymized with *Motes aequalis* by G. Bohart in Muesebeck, Krombein, and Townes, 1951:954, and with *Liris beata* by Krombein, 1979:1619. – Snow, 1906:134 (Arizona); Cresson, 1928:45 (holotype in ANSP). – **As *Motes occidentalis***: Pate, 1943i:200 (new generic assignment, new status, recorded from USA).

Notogonia subaequalis Rohwer, 1909f:370, ♀. Holotype: ♀, Texas: Fedor (MCZ). Synonymized with *Motes aequalis* by G. Bohart in Muesebeck, Krombein, and Townes, 1951:954, and with *Liris beata* by Krombein, 1979:1619. – **As *Motes subaequalis***: Pate, 1943i:200 (new generic assignment, recorded from USA).

39. *bellus* (Lepeletier de Saint Fargeau)

Tachytes bellus Lepeletier de Saint Fargeau, 1845:248, ♀ (as *bella*, incorrect original termination). Holotype or syntypes: ♀, Brazil: no specific locality (originally coll. Serville, now M. Spinola coll., Torino). – F. Smith, 1856:305 (in catalog of Hymenoptera in British Museum); Dalla Torre, 1897:688 (in catalog of world Hymenoptera); Pagliano, 2011a:113 (holotype in coll. Spinola, Torino). – **As *Larra bella***: Bradley, 1957:44 (new generic assignment, Lepeletier de Saint Fargeau's specimens in Torino). – **As *Liris bella***: R. Bohart and Menke, 1976:244 (new generic assignment, in checklist of world Sphecidae). – **As**

Liris bellus: Hanson and Menke, 1995:639 (known from Costa Rica); Amarante, 2002:40 (in catalog of Neotropical Crabronidae).

40. *bembesianus* (Bischoff)

Notogonia bembesiana Bischoff, 1913c:71, ♀, ♂. Syntypes: Zimbabwe: Bembesi (ZMHU). – As *Notogonidea bembesiana*: Arnold, 1923b:237 (new generic assignment, in revision of southern African Sphecidae), 1930:6 (in checklist of Afrotropical Sphecidae); Schouteden, 1930:91 (Zaire). – As *Liris bembesiana*: R. Bohart and Menke, 1976:244 (new generic assignment, in checklist of world Sphecidae).

ssp. *pseudocroesus* (Arnold)

Motes bembesiana var. *pseudocroesus* Arnold, 1940:124, ♀. Holotype: ♀, Zimbabwe: Sabi Valley (SAM). – As *Liris bembesiana pseudocroesus*: R. Bohart and Menke, 1976:244 (new generic assignment, new status, in checklist of world Sphecidae).

41. *bengalensis* (Cameron)

Notogonia bengalensis Cameron, 1903b:123, ♀. Holotype or syntypes: ♀, India: West Bengal: Barrackpore 20 km north of Calcutta (OXUM). – Rothney, 1903:104 (India: West Bengal: Barrackpore); Ramakrishna Aiyar, 1916:552 (in catalog of Indian aculeates described after Bingham, 1897). – As *Liris bengalensis*: R. Bohart and Menke, 1976:244 (new generic assignment, in checklist of world Sphecidae).

42. *bequaerti* (Arnold)

Notogonidea bequaerti Arnold, 1929c:394, ♀ (as *Bequaerti*, incorrect original capitalization). Holotype: ♀, Zaire: Zambezi (MRAC). – Arnold, 1930:6 (in checklist of Afrotropical Sphecidae); Schouteden, 1930:91 (Zaire). – As *Liris bequaerti*: R. Bohart and Menke, 1976:24. (new generic assignment, in checklist of world Sphecidae).

43. *bicolor* (W.F. Kirby)

Notogonia bicolor W.F. Kirby, 1900:16, ♀. Holotype: ♀, Yemen: Island of Sokatra: Adho Dimellus (BMNH). – W.F. Kirby, 1903:243 (Socotra, redescription); Kohl, 1906a:218 (original description copied). – As *Liris bicolor*: R. Bohart and Menke, 1976:244 (new generic assignment, in checklist of world Sphecidae); Gadallah, 2020b:38 (in list of aculeate wasps of Arabian Peninsula).

44. *bidentatus* (Arnold)

Notogonidea bidentata Arnold, 1923b:240, ♀. Holotype: ♀, Zimbabwe: Bulawayo (SAM). – Arnold, 1930:6 (in checklist of Afrotropical Sphecidae). – As *Liris bidentata*: R. Bohart and Menke, 1976:244 (new generic assignment, in checklist of world Sphecidae). – As *Liris bidentatus*: Dollfuss, 1993a:693 (Central African Republic: Kembe).

45. *biroi* Tsuneki

Liris biroi Tsuneki, 1983c:14, ♀ (subgenus *Leptolarra*). Holotype: ♀, New Guinea: Morobe: Huon Gulf: Satterberg, correctly Sattelberg (TMB). – Tsuneki, 1983c:31 (in key to *Liris* of Papua New Guinea).

46. *bismarckanus* Tsuneki

Liris bismarckana Tsuneki, 1982a:15, ♀. Holotype: ♀, Papua New Guinea: New Ireland: Yalom (ZMUC). – Tsuneki, 1982a:11 (in key to *Liris* of South Pacific islands).

47. *borneanus* Tsuneki

Liris borneanus Tsuneki, 1974b:610, ♂ (as *borneana*, incorrect original termination). Holotype: ♂, Malaysia: Sabah: Kota Kinabalu (originally K. Tsuneki coll., now USNM). – R. Bohart and Menke, 1976:629 (in checklist of world Sphecidae).

48. *bradleyi* (Maidl)

Notogonia bradleyi Maidl, 1925a:382, ♀, ♂. Syntypes: Indonesia: Sumatra: no specific locality (NHMW). – **As *Liris bradleyi*:** R. Bohart and Menke, 1976:244 (new generic assignment, in checklist of world Sphecidae); Dollfuss, 1989:10 (type material in NHMW).

49. *braueri* Kohl

Liris braueri Kohl, 1884a:356, ♀, ♂ (as *Braueri*, incorrect original capitalization). Syntypes: Egypt: Sinai Peninsula: Tor (NHMW). – Kohl, 1885a:257 (in revision of Palearctic Larrinae), 1892:228 and 229 (in key to world *Liris* s.s.); Dalla Torre, 1897:664 (in catalog of world Hymenoptera); Kohl 1906a:221 (Arabian Peninsula: Makalla), 1908b:310 (Sri Lanka: Kandi); Balthasar, 1954b:270 (Palestine: Wadi el Kelt near Jericho); de Beaumont, 1961f:223 (in revision of Mediterranean *Liris*), 1970c:14 (Iran: Baluchistan); de Beaumont, Bytinski-Salz and Pulawski, 1973:4 (Israel); R. Bohart and Menke, 1976:244 (in checklist of world Sphecidae); Kazenas, 1978b:102, 103 (in key to Sphecidae of Kazakhstan and Central Asia); Roche and Zalot, 1994:115 (Egypt: Sinai Peninsula); Guichard, 1980:226 (Oman); Dollfuss, 1989:10 (type material in NHMW); Roche, 2007a:64 (in checklist of Egyptian Crabronidae), 2007b:4 (in checklist of Egyptian Ampulicidae, Sphecidae, and Crabronidae); T. Li, Cai, and Q. Li, 2009a:117, 118 (in key to Palearctic *Liris*); Schmid-Egger, 2011b:546 (first record from United Arab Emirates: Wadi al-Helo, Wadi Madaq, Wadi Safad, Wadi Wurayah), 548 (color photographs of male and female); Gadallah, Al Dhafer, Aldryhim, Fadl, and Elgharbawy, 2013:351 (in new catalog of Sphecidae of Saudi Arabia); Ebrahimi, 2014:37 (Iran: Sistān-Baluchestān and Hornozgān provinces); Schmid-Egger, 2014:575 (United Arab Emirates); Jahantigh, Rakhshani, Mokhtari, and Ramroodi, 2017:64 (Iran: known from Hormozgan and Sistan-o Baluchestan provinces); Gadallah, 2020b:38 (in list of aculeate wasps of Arabian Peninsula); Rezaei, Fallahzadeh, Dousti, and Saghaei, 2020b:12 (Iran: Fars: Estahban: Mobarak Abad at 29°15'14"N 53°56'46"E and Dalin at 30°02'15"N 52°07'54"E). – **As *Larra braueri*:** Kohl, 1885a:242 (new generic assignment, in checklist of world *Larra*).

50. *braunsi* (Arnold)

Notogonidea braunsi Arnold, 1923b:238, ♀ (as *Braunsi*, incorrect original capitalization). Holotype: ♀, Zimbabwe: Salisbury, now Harare (SAM). – Arnold, 1930:6 (in checklist of Afrotropical Sphecidae). – **As *Motes braunsi*:** Guiglia, 1943c:76 (new generic assignment, Ethiopia: Gamo Gofa: Sagan – Omo region, determination tentative), 1950:257 (Ethiopia: Caschei, determination tentative). – **As *Liris braunsi*:** R. Bohart and Menke, 1976:244 (new generic assignment, in checklist of world Sphecidae); Dollfuss, 1993a:693 (Central African Republic: Kembe).

51. *bredoi* Benoit

Liris bredoi Benoit, 1951:127, ♀ (as *Bredoi*, incorrect original capitalization). Holotype: ♀, Zaire: Albert Lake, now Lake Mobutu Sese Seko (MRAC). – R. Bohart and Menke, 1976:244 (in checklist of world Sphecidae).

52. *brunnipennis* Arnold

Liris brunnipennis Arnold, 1945:130, ♀, ♂. Syntypes: Madagascar: Bekily (MNHN). – R. Bohart and Menke, 1976:244 (in checklist of world Sphecidae); Madl, 1997:820 (Madagascar: island of Nosy Boraha), 821 (in checklist of Nosy Boraha Sphecidae); Pulawski, 2003b:796 (in checklist of Malagasy Sphecidae, as *brunneipennis*); Madl, 2014a:967 (in catalog of Ampulicidae, Crabronidae, and Sphecidae of Madagascar, with synonymy and locality records). – **As *Motes brunnipennis*:** Leclercq, 1960a:97 (new generic assignment, Madagascar), 1961d:115 (Madagascar).

53. *caeruleipennis* (Maidl)

Notogonia caeruleipennis Maidl, 1925a:383, ♀. Syntypes: ♀, Indonesia: Sumatra: no specific locality (NHMW). – **As *Liris caeruleipennis*:** R. Bohart and Menke, 1976:244 (new generic assignment, in checklist of world Sphecidae); Dollfuss, 1989:10 (type material in NHMW).

54. *cameroni* Tsuneki

Liris cameroni Tsuneki, 1976b:66, ♀. Holotype: ♀, Philippines: Mindanao: Sapamoro (ZMUC). – Tsuneki, 1976b:73 (insertion into key to *Liris* of Williams, 1928a), 1983a:46 (in key to *Liris* of Philippines).

55. *campestris* (F. Smith)

Larrada campestris F. Smith, 1856:286, ♀. Holotype or syntypes: ♀, Brazil: Amazonas: Villa Nova, now Parintins (BMNH). – Taschenberg, 1870:2 (additional description); Strand, 1910a:158 (Paraguay); Schrottky, 1913a:231 (Argentina: Mendoza). – **As *Larra campestris***: Kohl, 1885a:242 (new generic assignment, in checklist of world *Larra*); Dalla Torre, 1897:665 (in catalog of world Hymenoptera); Schrottky, 1903b:177 (in checklist of Hymenoptera of Argentina, Paraguay, and Uruguay); Jørgensen, 1912:291 (Argentina: Mendoza Province). – **As *Liris campestris***: R. Bohart and Menke, 1976:244 (new generic assignment, in checklist of world Sphecidae); Amarante, 2002:40 (in catalog of Neotropical Crabronidae).

56. *carinatus* Tsuneki

Liris carinatus Tsuneki, 1976b:68, ♀ (as *carinata*, incorrect original termination). Holotype: ♀, Philippines: Palawan: Pinigisan (ZMUC). – Tsuneki, 1976b:73 (insertion into key to *Liris* of Williams, 1928a), 1983a:46 (in key to *Liris* of Philippines).

57. *carolinensis* Yasumatsu

Liris mindanaoensis carolinensis Yasumatsu, 1941:46, ♂. Holotype: ♂, Caroline Islands: Tol: Olej-Foup (Fukuoka). – Krombein, 1949b:399 (discussion of identity); Tsuneki, 1982a:10 (in key to *Liris* of South Pacific islands). – **As *Liris carolinensis***: Krombein, 1950b:141 (full species status), 142 (in key to *Liris* of Micronesia); R. Bohart and Menke, 1976:244 (in checklist of world Sphecidae).

58. *cavicola* Tsuneki

Liris cavicola Tsuneki, 1983a:39, ♀ (subgenus *Leptolarra*). Holotype: ♀, Philippines: Mindanao: Cagayan de Oro: Makambus Cave (originally K. Tsuneki coll., now in USNM). – not included in key to Philippine *Liris* of Tsuneki, 1983a:45; Nuhn and Menke, 1994:27 (holotype not transferred to USNM, possibly returned to T. Murota, the collector); Menke, 1995:14 (type still in K. Tsuneki collection); Tano, 1995:45 (holotype in K. Tsuneki collection), 2020:26 (holotype in USNM).

59. *championi* (Cameron)

Notogonia championi Cameron, 1889a:53, [♀]. Holotype or syntypes: ♀, Guatemala: Paraiso (BMNH). – **As *Larra championi***: Kohl in Dalla Torre, 1897:665 (new generic assignment, in catalog of world Hymenoptera, as *championii*). – Ashmead, 1899d:249 (in checklist of North American Crabronidae). – **As *Liris championi***: R. Bohart and Menke, 1976:244 (new generic assignment, in checklist of world Sphecidae); Krombein and Shanks Gingras, 1984:44 (in revision of North American *Liris*); Amarante, 2002:40 (in catalog of Neotropical Crabronidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:664 (in checklist of Mexican Sphecidae).

60. *cheesmanae* Menke

Notogonidea nitida Cheesman, 1937:206, ♀, junior secondary homonym of *Liris nitidus* Cameron, 1913. Holotype: ♀, Vanuatu: Malekula (BMNH).

Liris cheesmanae Menke in R. Bohart and Menke, 1976:244. Substitute name for *Liris nitida* (Cheesman, 1937). – R. Bohart and Menke, 1976:244 (in checklist of world Sphecidae).

61. *chrysobaptus* (F. Smith)

Larrada chrysobapta F. Smith, 1862:56, ♀. Holotype or syntypes: ♀, Indonesia: Sulawesi: Tondano (BMNH). – F. Smith, 1863b:135 (known from Sulawesi), 1871a:365 (in catalog of Oriental Aculeata). – **As *Larra chrysobapta***: Kohl, 1885a:242 (new generic assignment in checklist of world *Larra*); Dalla Torre, 1897:665 (in catalog of world Hymenoptera). – **As *Liris chrysobapta***: R. Bohart and Menke, 1976:244 (new generic assignment, in checklist of world Sphecidae).

62. *chrysonotus* (F. Smith)

Larrada chrysonota F. Smith, 1869:304, ♀. Holotype or syntypes: ♀, Australia: Western Australia: Champion Bay, now Geraldton (BMNH). – Froggatt, 1892:219 (in catalog of Australian Hymenoptera). – **As *Larra chrysonota***: Kohl, 1885a:242 (new generic assignment, in checklist of world *Larra*); Dalla Torre, 1897:665 (in catalog of world Hymenoptera); W. Schulz, 1908:477 (Australia: Coolgardie, redescription). – **As *Notogonia chrysonota***: R. Turner, 1908:475 (new generic assignment, Australia), 1916e:283 (in revision of Australian *Liris*). – **As *Liris chrysonota***: R. Bohart and Menke, 1976:244 (new generic

assignment, in checklist of world Sphecidae); Cardale, 1985:235 (in catalog of Australian Sphecidae); Naumann, 1998:185 (Australia: northwest Queensland: Musselbrook area, approximately 18°40'S 138°23'E).

Larrada crassipes F. Smith, 1873c:294, ♀, ♂. Syntypes: South Australia: no specific locality (BMNH). Synonymized with *Noto-
gonia chrysonota* by R. Turner, 1908:475. – Froggatt, 1892:218 (in catalog of Australian Hymenoptera). – **As *Larra cras-
sipes***: Kohl, 1885a:242 (new generic assignment, in checklist of world *Larra*); Dalla Torre, 1897:665 (in catalog of world
Hymenoptera).

63. *ciliatus* (F. Smith)

Larrada ciliata F. Smith, 1856:283, ♀. Holotype or syntypes: ♀, South Africa: no specific locality (BMNH). – **As *Larra ciliata***:
Kohl, 1885a:242 (new generic assignment, in checklist of world *Larra*); Dalla Torre, 1897:665 (in catalog of world Hyme-
noptera). – **As *Notogonia ciliata***: R. Turner, 1920b:496 (new generic assignment, South Africa: Cape Province; Namibia). –
As *Notogonidea ciliata*: Arnold, 1923b:234 (new generic assignment, in revision of southern African Sphecidae), 1930:6 (in
checklist of Afrotropical Sphecidae), 1935a:498 (South Africa: Kalahari). – **As *Liris ciliata***: R. Bohart and Menke, 1976:244
(new generic assignment, in checklist of world Sphecidae). – **As *Liris ciliatus***: Roche, 2007a:68 (in checklist of Egyptian
Crabronidae, first record from Egypt: Tell el Kebir).

64. *claripennis* Tsuneki

Liris claripennis Tsuneki, 1982a:16, ♀. Holotype: ♀, Papua New Guinea: Bismarck Archipelago: island of Dyaul: Sumuna
(ZMUC). – Tsuneki, 1982a:13 (in key to *Liris* of South Pacific islands).

65. *claviformis* T. Li, Cai, and Q. Li

Liris claviformis T. Li, Cai, and Q. Li, 2009a:112, ♀, ♂. Holotype: ♀, China: Yunnan: Jinping County: Mengla (Zoological Insti-
tute, Academy of Sciences of China, Beijing, China). – T. Li, Cai, and Q. Li, 2009a:117, 119 (in key to Palearctic *Liris*).

66. *cleopatra* de Beaumont

Liris cleopatra de Beaumont, 1961f:231, ♀, ♂. Holotype: ♀, Egypt: Ghiza (originally W. Pulawski coll., now CAS). – Pulawski,
1964:82 (Egypt: Luxor; fine mesopleural sculpture differentiates it from *Liris atrata*); Osborn and Krombein, 1969:16
(northwestern Sudan: Gebel 'Uweinat: Wadi Ain el Brins); de Beaumont, Bytinski-Salz and Pulawski, 1973:5 (Israel);
R. Bohart and Menke, 1976:244 (in checklist of world Sphecidae); Roche, 2007a:66 (in checklist of Egyptian Crabronidae),
2007b:4 (in checklist of Egyptian Ampulicidae, Sphecidae, and Crabronidae); T. Li, Cai, and Q. Li, 2009a:117, 119 (in key to
Palearctic *Liris*); Schmid-Egger, 2011b:546 (first record from United Arab Emirates: north of Ajman, Um al-Quwain), 549
(color photograph of male), 2014:575 (United Arab Emirates); Gadallah, 2020b:38 (in list of aculeate wasps of Arabian Pen-
insula); Ben Khedher, Yildirim, and Braham, 2021a:59 (first record from Tunisia: Mahdia and Sidi Alouane governorates).

67. *clypeatus* (F. Smith)

Larrada clypeata F. Smith, 1873c:294, ♀. Holotype or syntypes: ♀, New Caledonia: no specific locality (BMNH). – **As *Larra
clypeata***: Kohl, 1885a:242 (new generic assignment, in checklist of world *Larra*); Dalla Torre, 1897:665 (in catalog of world
Hymenoptera). – **As *Notogonia clypeata***: R. Turner, 1919b:239 (new generic assignment; New Caledonia, Vanuatu: Api). –
As *Liris clypeata*: Cheesman, 1937:204 (new generic assignment, description of ♂); F. Williams, 1945:442 (New Caledonia,
diagnostic characters); R. Bohart and Menke, 1976:244 (in checklist of world Sphecidae). – **As *Liris clypeatus***: Callan,
1990a:22 (New Caledonia: no specific locality); Jennings, Krogmann, and Burwell, 2013:31 (in checklist of Hymenoptera of
New Caledonia).

68. *clypefoveolatus* T. Li, Cai, and Q. Li

Liris clypefoveolatus T. Li, Cai, and Q. Li, 2009a:113, ♂. Holotype: ♂, China: Yunnan: Luxi County: western outskirts of Fapa
Town in Luxi City (Yunnan Agricultural University, Kunming). – T. Li, Cai, and Q. Li, 2009a:118 (in key to Palearctic *Liris*).

69. *clypeopunctatus* Tsuneki

Liris clypeopunctatus Tsuneki, 1974b:604, ♂, ♀ (as *clypeopunctata*, incorrect original termination). Holotype: ♂, Thailand: Sara Buri (originally T. Tano coll., Fukui, now USNM). – R. Bohart and Menke, 1976:629 (in checklist of world Sphecidae); Nuhn and Menke, 1994:25 (holotype in USNM).

70. *commixtus* (R. Turner)

Notogonia commixta R. Turner, 1908:480, ♀. Holotype or syntypes: ♀, Australia: Queensland: Cairns (BMNH). – R. Turner, 1916e:283 (in revision of Australian *Liris*). – **As *Liris commixta***: R. Bohart and Menke, 1976:244 (new generic assignment, in checklist of world Sphecidae); Cardale, 1985:235 (in catalog of Australian Sphecidae).

71. *conjungens* (Walker)

Larrada conjungens Walker, 1871:21, ♀. Holotype or syntypes: ♀, Eritrea: Island of Dahlak (destroyed). – **As *Larra conjungens***: Kohl in Dalla Torre, 1897:665 (new generic assignment, in catalog of world Hymenoptera). – **As *Liris conjungens***: R. Bohart and Menke, 1976:244 (tentative new generic assignment).

72. *consobrinus* Arnold

Liris consobrinus Arnold, 1959:331, ♂ (as *consobrina*, incorrect original termination). Holotype: ♂, Tanzania: Rukwa Valley (BMNH). – R. Bohart and Menke, 1976:245 (in checklist of world Sphecidae).

73. *conspicuus* (F. Smith)

Larrada conspicua F. Smith, 1856:276, ♀. Holotype: ♀, India: no specific locality (OXUM). – F. Smith, 1871a:364 (in catalog of Oriental Aculeata). – **As *Larra conspicua***: Kohl, 1885a:242 (new generic assignment, in checklist of world *Larra*); Cameron, 1889c:125 (in list of Oriental Sphecidae). – **As *Tachytes conspicuus***: Bingham, 1897:187 (new generic assignment, re-description). – **As *Liris conspicua***: Pulawski, 1975a:319 (new generic assignment); R. Bohart and Menke, 1976:245 (in checklist of world Sphecidae).

Notogonia pulchripennis Cameron, 1889c:129, sex not stated. Holotype or syntypes: ♀, India: Orissa: Jeypore (OXUM). Synonymized with *Liris conspicua* by Pulawski, 1975a:319. – **As *Larra pulchripennis***: Kohl in Dalla Torre, 1897:672 (new generic assignment, in catalog of world Hymenoptera).

Notogonia luteipennis Cameron, 1890:pl. IX fig 2, junior secondary homonym of *Liris luteipennis* (Cresson, 1869). Objective synonym of *Notogonia pulchripennis*. Synonymized with *Liris conspicua* by Pulawski, 1975a:319.

74. *corniger* F. Williams

Liris corniger F. Williams, 1936b:126, ♀. Holotype: ♀, Solomon Islands: Supaina: South Mala (BMNH). – F. Williams, 1945:444 (holotype may be a teratological specimen); R. Bohart and Menke, 1976:245 (in checklist of world Sphecidae); Tsuneki, 1982a:12 (in key to *Liris* of South Pacific islands).

75. *coronalis* (F. Smith)

Larrada coronalis F. Smith, 1856:287, ♀. Syntypes: ♀, Brazil: Amazonas: Villa Nova, now Parintins (BMNH). – **As *Larra coronalis***: Kohl, 1885a:242 (new generic assignment, in checklist of world *Larra*); Dalla Torre, 1897:665 (in catalog of world Hymenoptera). – **As *Liris coronalis***: R. Bohart and Menke, 1976:245 (new generic assignment, in checklist of world Sphecidae); Amarante, 2002:40 (in catalog of Neotropical Crabronidae).

76. *cowani* (W.F. Kirby)

Larrada cowani W.F. Kirby, 1883:200, sex not stated (as *Cowani*, incorrect original capitalization). Syntypes: Madagascar: no specific locality (BMNH). – **As *Larra cowani***: Kohl, 1885a:242 (new generic assignment, in checklist of world *Larra*); Dalla Torre, 1897:665 (in catalog of world Hymenoptera). – **As *Liris cowani***: R. Turner, 1916b:249 (new generic assignment); R. Bohart and Menke, 1976:245 (in checklist of world Sphecidae); Pulawski, 2003b:796 (in checklist of Malagasy Sphecidae); Madl, 2014a:967 (in catalog of Ampulicidae, Crabronidae, and Sphecidae of Madagascar, with synonymy and locality records).

Liris jocositarsus de Saussure, 1887:18, ♂ (as *jocositarsa*, incorrect original termination). Holotype or syntypes: ♂, Madagascar: no specific locality (MHNG). Synonymized with *Liris cowani* by ...— de Saussure, 1892:515 (Madagascar, redescription); Kohl, 1892:226 (description of ♀), 227 (in key to world *Liris* s.s.). — **As *Larra jocositarsa***: Kohl in Dalla Torre, 1897:669 (new generic assignment, in catalog of world Hymenoptera). — **As *Liris haemorrhoidalis* race *jocositarsa***: Arnold, 1945:117 (new status, in revision of Madagascar Sphecidae). — **As *Liris haemorrhoidalis jocositarsa***: Leclercq, 1960a:97 (new status, Madagascar), 1961d:112 (Madagascar); R. Bohart and Menke, 1976:245 (in checklist of world Sphecidae, as tentative synonym of *Liris cowani*); Madl, Matyot, and Schödl, 1996:832 (Seychelles Islands).

Liris pedestris de Saussure, 1892:517, ♀, ♂. Syntypes: Madagascar: Antananarivo and Anosibé in Tamatave Province (MHNG). Synonymized with *Liris cowani* by R. Turner, 1916b:249 and with *Liris haemorrhoidalis* var. *jocositarsa* by Arnold, 1945. — de Beaumont, 1961f:222 (valid name for *Liris haemorrhoidalis* race *jocositarsa* of Arnold, 1945). — **As *Larra pedestris***: Kohl in Dalla Torre, 1897:671 (new generic assignment, in catalog of world Hymenoptera).

77. *crassicornis* (Maidl)

Notogonia crassicornis Maidl, 1925a:384, ♂. Holotype: ♂, Indonesia: Sumatra: no specific locality (NHMW). — **As *Liris crassicornis***: R. Bohart and Menke, 1976:245 (new generic assignment, in checklist of world Sphecidae); Dollfuss, 1989:10 (type material in NHMW).

78. *crepitans* Leclercq

Liris crepitans Leclercq, 1967b:65, ♂. Holotype: ♂, Madagascar: Maevatanatoa (MNHN). — R. Bohart and Menke, 1976:245 (in checklist of world Sphecidae); Pulawski, 2003b:796 (in checklist of Malagasy Sphecidae); Madl, 2014a:968 (in catalog of Ampulicidae, Crabronidae, and Sphecidae of Madagascar, with synonymy and locality records).

79. *croesus* (F. Smith)

Larrada croesus F. Smith, 1856:284, ♀ (as *Croesus*, incorrect original capitalization). Holotype or syntypes: ♀, Gambia: no specific locality (BMNH). — **As *Larra croesus***: Kohl, 1885a:242 (new generic assignment, in checklist of world *Larra*), 1894:300 (redescription, description of ♂); Dalla Torre, 1897:666 (in catalog of world Hymenoptera). — **As *Notogonia croesus***: W. Schulz, 1905b:9 (new generic assignment, West Africa: Gobinda); R. Turner, 1917b:320 (East and West Africa, diagnostic characters). — **As *Notogonidea croesus***: Arnold, 1923b:235 (new generic assignment, in revision of southern African Sphecidae), 1930:6 (in checklist of Afrotropical Sphecidae); Schouteden, 1930:91 (Zaire, as *croesus*). — **As *Motes croesus***: Guiglia, 1943c:76 (new generic assignment, Ethiopia: Gamo Gofa: Sagan — Omo region), 1950:257 (Ethiopia: Gamo Gofa: Gongabaino). — **As *Liris croesus***: Arnold, 1951:159 (new generic assignment, Senegal: Diafarabé); R. Bohart and Menke, 1976:245 (in checklist of world Sphecidae); Dollfuss, 1993a:693 (Central African Republic: Kembe).

Motes liroides R. Turner, 1913:753, ♀. Holotype: ♀, Kenya: Witu (BMNH). Synonymized with *Notogonia croesus* by R. Turner, 1917b:320.

Notogonia pseudoliris R. Turner, 1913:750, ♀. Lectotype: ♀, Uganda: Entebbe (BMNH), designated by Pulawski, 1975a:319. Synonymized with *Liris croesus* by Pulawski, 1975a:318. — **As *Notogonidea pseudoliris***: Arnold, 1930:6 (new generic assignment, in checklist of Afrotropical Sphecidae); Schouteden, 1930:92 (Zaire).

Motes deceptor R. Turner, 1916a:253, ♀. Holotype or syntypes: ♀, Nigeria: Offi (BMNH). Synonymized with *Notogonidea croesus* by Arnold, 1923b:235. — **As *Notogonia deceptor***: R. Turner, 1917b:320 (new generic assignment, possibly a synonym of *Notogonia croesus*).

ssp. congoensis (Arnold)

Notogonidea croesus var. *congoensis* Arnold, 1932:2, ♀. Holotype: ♀, Zaire: Kambaye (SAM). — **As *Liris croesus congoensis***: R. Bohart and Menke, 1976:245 (new generic assignment, new status, in checklist of world Sphecidae).

80. *crux* Tsuneki

Liris crux Tsuneki, 1982a:16, ♀. Holotype: ♀, Papua New Guinea: New Ireland: Lemkamin (ZMUC). — Tsuneki, 1982a:13 (in key to *Liris* of South Pacific islands).

81. cubitalis (de Saussure)

Notogonia cubitalis de Saussure, 1887:17, ♀. Holotype or syntypes: ♀, Mauritius: no specific locality (MHNG or MNHN). – de Saussure, 1892:513 (redescription). – **As *Larra cubitalis***: Dalla Torre, 1897:666 (new generic assignment, in catalog of world Hymenoptera). – **As *Liris cubitalis***: R. Bohart and Menke, 1976:245 (new generic assignment, in checklist of world Sphecidae); Madl, 2014a:968 (in catalog of Ampulicidae, Crabronidae, and Sphecidae of Madagascar, with synonymy and locality records).

82. cupreohirtus Tsuneki

Liris cupreohirtus Tsuneki, 1976b:64, ♀ (as *cupreohirta*, incorrect original termination). Holotype: ♀, Philippines: Palawan: Pinigisan (ZMUC). – **As *Liris cupreohirtus***: Tsuneki, 1976b:72 (insertion into key to *Liris* of Williams, 1928a), 1983a:42 (Philippines: Luzon), 45 (in key to *Liris* of Philippines).

83. danus Tsuneki

Liris danus Tsuneki, 1982a:26, ♀ (as *dana*, incorrect original termination). Holotype: ♀, Papua New Guinea: New Ireland: Lemkamin (ZMUC). – Tsuneki, 1982a:18 (in key to *Liris* of South Pacific islands).

84. davaonis Tsuneki

Liris davaonis Tsuneki, 1983a:42, ♂ (subgenus *Leptolarra*). Holotype: ♂, Philippines: Mindanao: Davao: Matina Height (originally K. Tsuneki coll., now in USNM). – Tsuneki, 1983a:48 (in key to *Liris* of Philippines); Nuhn and Menke, 1994:27 (holotype not transferred to USNM, possibly returned to K. Sabi, the collector); Menke, 1995:14 (type still in K. Tsuneki collection); Tano, 1995:45 (holotype in K. Tsuneki collection), 2020:26 (holotype in USNM).

85. dejectus Arnold

Liris dejectus Arnold, 1945:129, ♀, ♂ (as *dejecta*, incorrect original termination). Syntypes: Madagascar: Bekily (MNHN). – R. Bohart and Menke, 1976:245 (in checklist of world Sphecidae); Pulawski, 2003b:796 (in checklist of Malagasy Sphecidae); Madl, 2014a:969 (in catalog of Ampulicidae, Crabronidae, and Sphecidae of Madagascar, with synonymy and locality records). – **As *Motes dejecta***: Leclercq, 1960a:97 (new generic assignment, Madagascar), 1961d:115 (Madagascar).

86. deliquus Krombein and Shanks Gingras

Liris deliquus Krombein and Shanks Gingras, 1984:66, ♂, ♀. Holotype: ♂, Mexico: Veracruz: Minatitlán (USNM). – Amarante, 2002:40 (in catalog of Neotropical Crabronidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:664 (in checklist of Mexican Sphecidae).

87. denticulatus (R. Turner)

Notogonia denticulata R. Turner, 1920b:496, ♀. Holotype or syntypes: ♀, South Africa: KwaZulu-Natal: Durban: Stella Bush (SAM). – **As *Notogonidea denticulata***: Arnold, 1923b:242 (new generic assignment, original description copied), 1930:6 (in checklist of Afrotropical Sphecidae). – **As *Liris denticulata***: Arnold, 1951:160 (new generic assignment, Ghana: Accra, Labadi); de Beaumont, 1967b:508 (South Africa: KwaZulu-Natal); R. Bohart and Menke, 1976:245 (in checklist of world Sphecidae).

88. dentipes (R. Turner)

Notogonia dentipes R. Turner, 1917f:294, ♀. Holotype or syntypes: ♀, Ghana: Obuasi (BMNH). – **As *Notogonidea dentipes***: Arnold, 1923b:234 (new generic assignment, original description copied), 1930:6 (in checklist of Afrotropical Sphecidae); Schouteden, 1930:91 (Zaire). – **As *Liris dentipes***: R. Bohart and Menke, 1976:245 (new generic assignment, in checklist of world Sphecidae); Dollfuss, 1993a:693 (Central African Republic: Kembe).

ssp. tanganyikae Arnold

Liris dentipes race *tanganyikae* Arnold, 1947:156, ♀. Holotype: ♀, Tanzania: Malonge (SAM). – **As *Liris dentipes tanganyikae***: R. Bohart and Menke, 1976:245 (new status, in checklist of world Sphecidae).

89. *deplanatus* (Kohl)

Notogonia deplanata Kohl, 1884a:358, ♀. Holotype or syntypes: ♀, Sri Lanka: no specific locality (NHMW). – Cameron, 1889c:130 (in list of Oriental Sphecidae); Bingham, 1896a:442 (bibliographic references), 1897:203 (redescription, Burma); Maidl, 1925a:381 (Indonesia: Sumatra); nec Tsuneki, 1964h:219 and 1964l:62 (= *Liris deplanatus binghami*). – **As *Larra deplanata***: Kohl, 1885a:243 (new generic assignment, in checklist of world *Larra*); Dalla Torre, 1897:665 (in catalog of world Hymenoptera). – **As *Liris deplanata***: Tsuneki, 1976b:60 (new generic assignment, Philippines; as *deplanata deplanata*), 72 (insertion into key to *Liris* of Williams, 1928a), 1983a:46 (in key to *Liris* of Philippines); Dollfuss, 1989:10 (type material in NHMW); Hua, 2006:280 (in list of Chinese insects, geographic distribution). – **As *Liris deplanatus***: Yamane, Ikudome, and Terayama, 1999:513 (in Identification Guide to Crabronidae of Nansei = Ryukyu Islands, Japan); T. Li, Cai, and Q. Li, 2009a:117 (in key to Palearctic *Liris*); Pham and Antropov, 2021:317 (in key to *Liris* of Vietnam), 319 (first record from Vietnam: Son La: Copia Nature Reserve); Mawadda and Girish Kumar, 2023:113 (in checklist of Crabroninae of Northern India).

As *Liris haemorrhoidalis*: Cameron, 1889c:130 (India: Pune and Punjab) and Bingham, 1896a:443 (Sri Lanka: Pundaluoya), corrected to *Notogonia deplanata* by Bingham, 1897:203.

Chrysolarra appendiculata Cameron, 1901b:118, ♀, junior secondary homonym of *Liris appendiculatus* (Taschenberg, 1870) and *Liris appendiculatus* (Cameron, 1900). Holotype or syntypes: ♀, India: Assam: Khasia Hills (OXUM). Synonymized with *Liris deplanatus* by Tsuneki, 1983d:54. – Ramakrishna Aiyar, 1916:553 (in catalog of Indian aculeates described after Bingham, 1897). – **As *Liris appendiculata***: R. Bohart and Menke, 1976:244 (new generic assignment, in checklist of world Sphecidae); Jonathan, Ray, and Kundu, 2000:193 (India: previously recorded from Meghalaya: East Khasi Hills).

Chrysolarra aureosericea Cameron, 1901b:119, ♀. Syntypes: ♀, India: Assam: Khasia Hills (OXUM). Synonymized with *Liris deplanatus* by Tsuneki, 1983d:54. – Ramakrishna Aiyar, 1916:553 (in catalog of Indian aculeates described after Bingham, 1897). – **As *Liris aureosericea***: R. Bohart and Menke, 1976:244 (new generic assignment, in checklist of world Sphecidae); Jonathan, Ray, and Kundu, 2000:193 (India: previously recorded from Meghalaya: East Khasi Hills).

Chrysolarra japonica Cameron, 1901b:120, ♀, junior secondary homonym of *Liris japonicus* (Kohl, 1884). Holotype or syntypes: ♀, Japan: no specific locality (BMNH). Synonymized with *Liris deplanatus* by Tsuneki, 1983d:54.

Tachytes fulvopilosus Cameron, 1904:297, ♀ (as *fulvo-pilosa*, incorrect original hyphenation and termination). Holotype or syntypes: ♀, India: Simla or Khasia (OXUM). Synonymized with *Liris deplanata* by Tsuneki, 1967a:1 and 1983d:55 (Pulawski's 1975 interpretation is incorrect). – Ramakrishna Ayyar, 1916:551 (in catalog of Indian aculeates described after Bingham, 1897).

ssp. *binghami* Tsuneki

As *Notogonia deplanata* var.: Bingham, 1897:203.

As *Motes* sp.: Tsuneki, 1962a:5 (Ryukyu Islands: Island of Amami-Oshima), corrected to *Liris deplanatus binghami* by Tsuneki, 1967a:1.

As *Liris deplanata* (corrected to *Liris deplanatus binghami* by Tsuneki, 1967a:1): Tsuneki, 1964l:62 (Japan; in key to Larrinae of Japan and Korea), 1964h:219 (Japan).

Liris deplanata binghami Tsuneki, 1967a:1, ♀, ♂. Holotype: ♀, Taiwan: Chiayi Prefecture: Fenchihu (originally K. Tsuneki coll., now USNM). – Tsuneki, 1967b:10, 14 (in key to Larrinae of Taiwan), 27 (Taiwan); Okumura, 1971:25 (Japan: Ryukyu Islands: island of Amami-Oshima; nesting habits); Tsuneki, 1971h:2 (Taiwan); Tano, 1972:23 (Japan: Ryukyu Islands); Murota, 1973a:101 (Japan: Ryukyu Islands: Amami-Oshima Islands), 1973b:118 (Taiwan); Tsuneki, 1974b:602 (Borneo); R. Bohart and Menke, 1976:245 (in checklist of world Sphecidae); Tsuneki, 1977j:268 (Taiwan: Taihorinsho), 1982e:27 (Taiwan), 1982g:59 (known from the Ryukyu archipelago, Japan); Nuhn and Menke, 1994:25 (holotype transferred to USNM); S. Gupta, 1995:86 (India: Uttar Pradesh); Wu and Zhou, 1996a:81 (in revision in Economic Insect Fauna of China); Porter, Stange, and Wang, 1999:7 (in checklist of Sphecidae of Taiwan); Wu, Zhou, Q. Li, and Yang, 2003:814 (China: Fujian Province); Hua, 2006:280 (in list of Chinese insects, geographic distribution); Haneda, Nozaka, Tano, Kurokawa, H. Murota, and T. Murota, 2007:53 (Japan: Kagoshima Prefecture: Amami Oshima Islands); T. Li, Cai, and Q. Li, 2007:420,

422 (in key to *Liris* of China); T. Murota and Kurokawa, 2009:14 (Japan: Ryukyu Archipelago: Amami Oshima Islands); Kawashima, 2010:28 (Japan: Kanagawa Prefecture: Yokosuka-shi); Muraki and Watanabe, 2011:33 (Japan: Honshu: Shizuoka Prefecture: Izu Peninsula); N. Yamamoto, 2011:12 (Japan: Kyūshyū: mainland Nagasaki Prefecture); Mawadda and Girish Kumar, 2023:113 (in checklist of Crabroninae of Northern India).

90. *diabolicus* (F. Smith)

Larrada diabolica F. Smith, 1873c:294, ♀. Syntypes: ♀, Sierra Leone and South Africa: Port Natal, now Durban (BMNH). – **As *Larra diabolica***: Kohl, 1885a:243 (new generic assignment, in checklist of world *Larra*); Dalla Torre, 1897:665 (in catalog of world Hymenoptera). – **As *Liris diabolica***: Bingham, 1902:209 (new generic assignment, Malawi), 1903a:66 (South Africa); R. Turner, 1913:750 (synonymy), 1917d:42 (synonymy); Arnold, 1923b:252 (in revision of southern African Sphecidae), 1930:7 (in checklist of Afrotropical Sphecidae); Schouteden, 1930:92 (Zaire); Guiglia, 1932:126 (Ethiopia: Harer; Somalia: Giumbo Plain), 1938a:186 (Somalia: Belet Amin in Jubba River area), 1939d:77 (Ethiopia: Sidamo: Neghelli, now Negele), 1943c:76 (Ethiopia: Gamo Gofa: Sagan – Omo region), 1950:258 (Ethiopia: Gamo Gofa: Caschei); R. Bohart and Menke, 1976:245 (in checklist of world Sphecidae). – **As *Liris diabolicus***: Dollfuss, 1993a:693 (Central African Republic: Kembe). *Tachytes capitalis* Radoszkowski, 1881:210, ♀. Holotype or syntypes: ♀, Angola: no specific locality (Kraków). Synonymized with *Liris diabolica* by R. Turner, 1917d:43. – Dalla Torre, 1897:688 (in catalog of world Hymenoptera). *Larra opipara* Kohl, 1894:297, ♀. Syntypes: ♀, Sierra Leone: no specific locality (MRAC) and Zaire: Vista (NHMW?). Synonymized with *Liris diabolica* by R. Turner, 1913:750. – Dalla Torre, 1897:671 (in catalog of world Hymenoptera). – **As *Liris opipara***: von Schulthess, 1914:286 (new generic assignment, Cameroon). *Liris violaceipennis* Cameron, 1908a:285, ♀, ♂, junior primary homonym of *Liris violaceipennis* Cameron, 1889, and of *Liris violaceipennis* Cameron, 1904. Syntypes: Tanzania: Mount Meru and Usambara Mountains (NRS). Synonymized with *Liris diabolica* by R. Turner, 1913:750.

91. *difficilis* Tsuneki

Liris difficilis Tsuneki, 1983b:4, ♀, ♂. Holotype: ♂, Taiwan: Yangmingshan (originally K. Tsuneki coll., now USNM). – Nuhn and Menke, 1994:25 (holotype transferred to USNM); Yamane, Ikudome, and Terayama, 1999:513 (in Identification Guide to Crabronidae of Nansei = Ryukyu Islands, Japan); Hua, 2006:280 (in list of Chinese insects, geographic distribution); T. Li, Cai, and Q. Li, 2007:421, 423 (in key to *Liris* of China), 2009a:118, 119 (in key to Palearctic *Liris*); Haneda, 2011:44 (Philippines: Palawan); Pham and Antropov, 2021:317, 318 (in key to *Liris* of Vietnam), 319 (first record from Vietnam: many localities). As *Liris subtessellata* (corrected to *Liris difficilis* by Tsuneki, 1983b:4 and 1983c:12): Tsuneki, 1963c:9 (Thailand), 1964l:62 (in key to Larrinae of Japan and Korea), 1966g:2 (Taiwan, Ryukyu Islands), 1967b:32 (Taiwan), 1967i:389 (Taiwan); Haneda, 1971b:29 (Taiwan); Tsuneki, 1971h:6 (Taiwan); Haneda, 1972a:3 (Taiwan); Tano, 1972:23 (Japan: Ryukyu Islands); Murota, 1973b:118 (Taiwan); Tsuneki, 1974b:602 (Thailand, Malaysia, Borneo), 1976b:59 (Philippines), 1977j:268 (Taiwan), 1982a:19 (in key to *Liris* of South Pacific islands), 22 (Papua New Guinea: New Ireland), 1982g:58 (known from Ryukyu archipelago). As *Liris subtessellatus* (corrected to *Liris difficilis* by Tsuneki, 1983b:4): Tsuneki, 1982f:47 (Ryukyu Islands), 1983a:18 (legs red in Formosan specimens, but red or black in Philippine specimens; diagnostic characters discussed), 46, 48 (in key to *Liris* of Philippines). As *Notogonia laboriosa*: Matsumura and Uchida, 1926:43 (Okinawa), corrected to *Liris docilis* by Tsuneki, 1983a:15, and to *Liris difficilis* by Tsuneki, 1983c:12.

92. *distinguendus* (Spinola)

Larra distinguenda Spinola, 1842:112, ♀, ♂. Holotype: French Guiana: Cayenne (M. Spinola collection, Torino). – Kohl, 1885a:243 (in checklist of world *Larra*); Dalla Torre, 1897:666 (in catalog of world Hymenoptera); Casolari and Casolari Moreno, 1980:112 (specimens in M. Spinola collection, Torino); Pagliano, 2008:544 (specimens in M. Spinola collection, Torino). – **As *Liris distinguenda***: R. Bohart and Menke, 1976:245 (new generic assignment, in checklist of world Sphecidae); Amarante, 2002:40 (in catalog of Neotropical Crabronidae).

93. *dives* (Lepeletier de Saint Fargeau)

Tachytes dives Lepeletier de Saint Fargeau, 1845:247, ♀. Holotype or syntypes: ♀, "Caroline": no specific locality (M. Spinola collection, Torino). – F. Smith, 1856:306 (in catalog of Hymenoptera in British Museum); Cresson, 1862:238 (in catalog of North American Hymenoptera); Patton, 1880b:392 (in checklist of North American Larrini); Cresson, 1887:277 (in catalog of North American Hymenoptera); W. Fox, 1892e:250 (in revision of North American *Tachytes*, unrecognizable), 1894a:504 (in revision of North American Larrinae; unrecognizable); Dalla Torre, 1897:689 (in catalog of world Hymenoptera); Ashmead, 1899d:250 (in checklist of North American Crabronidae); Krombein, 1979b:1619 (in catalog of North American Hymenoptera, unplaced taxon of Larrini). – **As *Larra dives***: Bradley, 1957:44 (type in M. Spinola collection Torino); Casolari and Casolari Moreno, 1980:113 (specimens in M. Spinola collection, Torino); Pagliano, 2011a:112 (holotype in coll. Spinola, Torino, is a *Liris*). – **As *Liris dives***: R. Bohart and Menke, 1976:245 (in checklist of world Sphecidae, tentative new generic assignment).

94. *dominganus* (Strand)

Notogonia domingana Strand, 1911a:154, ♀. Holotype: ♀, Ecuador: Santo Domingo de los Colorados (MNHN). – **As *Liris domingana***: R. Bohart and Menke, 1976:245 (new generic assignment, in checklist of world Sphecidae). – **As *Liris dominganus***: Krombein and Shanks Gingras, 1984:64 (in revision of North American *Liris*); Amarante, 2002:40 (in catalog of Neotropical Crabronidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:664 (in checklist of Mexican Sphecidae).

95. *dominicanus* Evans

Liris dominicanus Evans, 1972b:12, ♀, ♂ (as *dominicana*, incorrect original termination). Holotype: ♂, Caribbeans: island of Dominica: Clarke Hall in Layou Valley (USNM). – R. Bohart and Menke, 1976:245 (in checklist of world Sphecidae); Amarante, 2002:40 (in catalog of Neotropical Crabronidae).

96. *ducalis* (F. Smith)

Larrada ducalis F. Smith, 1860a:84, ♀. Syntypes: ♀, Indonesia: Sulawesi: Makasar (BMNH). – F. Smith, 1863b:135 (known from Sulawesi), 1871a:365 (in catalog of Oriental Aculeata). – **As *Notogonia ducalis***: Cameron, 1890c:314 (new generic assignment). – **As *Larra ducalis***: Kohl, 1885a:243 (new generic assignment, in checklist of world *Larra*); Dalla Torre, 1897:666 (in catalog of world Hymenoptera). – **As *Liris ducalis***: Kohl, 1892:224 (new generic assignment, original description copied and discussed); Bingham, 1896a:44 (Sri Lanka: Pundaluoya), 1897:207 (in revision of aculeates of British India); nec R. Turner, 1910b:425 (= *Liris melanius*); Nurse, 1914:445 (India: Assam: Rotung, Sadiya); R. Bohart and Menke, 1976:245 (in checklist of world Sphecidae); Wu and Zhou, 1996a:81 (in revision in Economic Insect Fauna of China); Hua, 2006:280 (in list of Chinese insects, geographic distribution).

Notogonia nigripennis Cameron, 1889c:131, ♀, ♂. Syntypes: India: Bangalore (Calcutta Mus.) and Poona (OXUM). Synonymized with *Liris ducalis* by R. Turner, 1914b:257. – Bingham, 1897:206 (in revision of aculeates of British India, Burma). – **As *Larra nigripennis***: Kohl in Dalla Torre, 1897:670 (new generic assignment, in catalog of world Hymenoptera). – **As *Liris nigripennis***: Giner Marí, 1945c:854 (new generic assignment, India: Maharashtra: Bandra); Tsuneki, 1974b:599 (Thailand; redescription); van Vondel, 1995:29 (specimens from India in Natuurmuseum Rotterdam).

97. *dyscheirus* (de Saussure)

Notogonia dyscheira de Saussure, 1892:510, ♀. Holotype: ♀, Madagascar: Imerina Province: no specific locality (MHNG). – **As *Larra dyscheira***: Kohl in Dalla Torre, 1897:666 (new generic assignment, in catalog of world Hymenoptera, as *dasycheira*); W. Schulz, 1906:212 (*dyscheira* is correct original spelling). – **As *Motes dyscheira***: Leclercq, 1960a:97 (new generic assignment, Madagascar), 1961d:113 (unnecessary designation of lectotype). – **As *Liris dyscheira***: Arnold, 1945:123 (new generic assignment, in revision of Madagascar Sphecidae; description of ♂); R. Bohart and Menke, 1976:245 (in checklist of world Sphecidae); Madl, 2014a:969 (in catalog of Ampulicidae, Crabronidae, and Sphecidae of Madagascar, with synonymy and locality records). – **As *Liris dyscheirus***: Pulawski, 2003b:796 (in checklist of Malagasy Sphecidae).

Larra dyschira W. Schulz, 1906:212. Unjustified emendation of *Notogonia dyscheira* de Saussure, 1892.

98. *elegans* (Bingham)

Larra elegans Bingham, 1897:197, ♀. Holotype or syntypes: ♀, Burma: Tenasserim: no specific locality (BMNH). – **As *Liris elegans***: R. Bohart and Menke, 1976:245 (new generic assignment, in checklist of world Sphecidae); Jonathan, Ray, and Kundu, 2000:193 (India: Meghalaya: East Garo Hills: Darugiri and Songsak).

99. *erythropoda* (Cameron)

Notogonia erythropoda Cameron, 1890:pl. IX fig. 5, junior secondary homonym of *Notogonia erythropoda* (Cameron, 1889) Cameron, 1890, now in *Parapiagetia*. Holotype: [♀], locality not stated but given as India, West Bengal: Barrackpore by Rothney, 1903:104 – Rothney, 1903:104 (India: West Bengal: Barrackpore). – **As *Larra erythropoda***: Kohl in Dalla Torre, 1897:666 (new generic assignment, in catalog of world Hymenoptera). – **As *Liris erythropoda***: R. Bohart and Menke, 1976:245 (new generic assignment, in checklist of world Sphecidae).

100. *erythropyga* (Arnold)

As Notogoniaidea thysanomera, race *usumbarensis* [sic]: Arnold, 1929c:396 (additional description), corrected to *Motes erythropyga* by Arnold, 1940:138.

Motes erythropyga Arnold, 1940:138, ♀, ♂. Syntypes: Zimbabwe: Bulawayo (SAM). – **As *Liris erythropyga***: R. Bohart and Menke, 1976:245 (new generic assignment, in checklist of world Sphecidae).

101. *erythrotoma* (Cameron)

Notogonia erythrotoma Cameron, 1908a:286, ♀. Syntypes: ♀, Tanzania: Mount Kilimanjaro: Kibonoto (NRS). – Arnold, 1923b:244 (as junior synonym of *Notogoniaidea sepulchralis*). – **As *Liris erythrotoma***: R. Bohart and Menke, 1976:245 (new generic assignment, in checklist of world Sphecidae).

102. *esakii* Yasumatsu

Liris esakii Yasumatsu, 1941:46, ♀, ♂. Holotype: ♀, Caroline Islands: Yap: Rul-Nif (Fukuoka). – Krombein, 1949b:383 (in key to Sphecidae of Micronesia), 397 (Caroline Islands), 1950b:141 (correction to earlier determination), 142 (in key to *Liris* of Micronesia); R. Bohart and Menke, 1976:245 (in checklist of world Sphecidae); Lomholdt, 1980a:31 (Papua New Guinea: Solomon Islands: Rennell Island); Tsuneki, 1982a:11, 12 (in key to *Liris* of South Pacific islands).

103. *evansi* Krombein and Shanks Gingras

Liris evansi Krombein and Shanks Gingras, 1984:24, ♂. Holotype: ♂, Mexico: Guerrero: 3 mi north of Taxco (USNM). – Amaranter, 2002:40 (in catalog of Neotropical Crabronidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:664 (in checklist of Mexican Sphecidae).

104. *extensus* (Walker)

Larrada extensus Walker, 1860:305, ♂. Holotype or syntypes: ♂, Sri Lanka: no specific locality (BMNH). – de Motschoulsky, 1863:24 (Sri Lanka, in catalog of insects of Sri Lanka); Cameron, 1898b:23 (not included in Bingham, 1897). – **As *Larra extensus***: Kohl, 1885a:243 (new generic assignment, in checklist of world *Larra*); Cameron, 1889c:125 (in list of Oriental Sphecidae); Bingham, 1896a:442 (bibliographic references); Dalla Torre, 1897:667 (in catalog of world Hymenoptera); Ramakrishna Aiyar, 1916:552 (omitted by Bingham, 1897). – **As *Liris extensus***: R. Bohart and Menke, 1976:245 (new generic assignment, in checklist of world Sphecidae).

105. *facilis* (F. Smith)

Larrada facilis F. Smith, 1873b:56, ♀. Holotype or syntypes: ♀, Brazil: Amazonas: Ega, now Tefé (BMNH). – **As *Larra facilis***: Kohl, 1885a:243 (new generic assignment, in checklist of world *Larra*); Dalla Torre, 1897:667 (in catalog of world Hymenoptera). – **As *Liris facilis***: R. Bohart and Menke, 1976:245 (new generic assignment, in checklist of world Sphecidae); Amaranter, 2002:40 (in catalog of Neotropical Crabronidae).

106. *fasciatus* (F. Smith)

Larrada fasciata F. Smith, 1873b:55, ♀. Holotype or syntypes: ♀, Brazil: Amazonas: São Paulo (BMNH). – **As *Larra fasciata*:** Kohl, 1885a:243 (new generic assignment, in checklist of world *Larra*); Dalla Torre, 1897:667 (in catalog of world Hymenoptera). – **As *Liris fasciata*:** R. Bohart and Menke, 1976:245 (new generic assignment, in checklist of world Sphecidae). – **As *Liris fasciatus*:** Amarante, 2002:40 (in catalog of Neotropical Crabronidae).

107. *ferrugineimarginalis* T. Li, Cai, and Q. Li

Liris ferrugineimarginalis T. Li, Cai, and Q. Li, 2007:423, ♀, ♂. Holotype: ♀, China: Guangdong: Huizhou: Xiangtuo Mountain (Zhejiang Univ., Hangzhou, China). – T. Li, Cai, and Q. Li, 2007:420, 421 (in key to *Liris* of China).

108. *ferrugineipes* (Lepeletier de Saint Fargeau)

Tachytes ferrugineipes Lepeletier de Saint Fargeau, 1845:248, ♀. Holotype or syntypes: ♀, Senegal: no specific locality (originally Serville coll., now?). – **As *Larrada ferrugineipes*:** F. Smith, 1856:283 (new generic assignment, in catalog of Hymenoptera in British Museum). – **As *Larra ferrugineipes*:** Kohl, 1885a:244 (new generic assignment, in checklist of world *Larra*); Dalla Torre, 1897:667 (in catalog of world Hymenoptera, new generic assignment); Magretti, 1906:15 (Eritrea, as *ferruginea*). – **As *Tachysphex ferrugineipes*:** Cameron, 1908a:289 (new generic assignment, Tanzania: Mount Meru lowlands; redescription). – **As *Notogonia ferrugineipes*:** von Schulthess, 1914:285 (new generic assignment, Cameroon). – **As *Liris ferrugineipes*:** R. Bohart and Menke, 1976:245 (new generic assignment, in checklist of world Sphecidae).

Larrada pallipes F. Smith, 1856:282, ♂. Holotype or syntypes: ♂, Africa: no specific locality (BMNH). Tentatively synonymized with *Liris ferrugineipes* by R. Bohart and Menke, 1976:245. – **As *Larra pallipes*:** Kohl, 1885a:246 (new generic assignment, in checklist of world *Larra*); Dalla Torre, 1897:671 (in catalog of world Hymenoptera, as *Larra pallidipes*); Magretti, 1906:15 (Eritrea); Arnold, 1930:6 (in checklist of Afrotropical Sphecidae, as *Larra pallidipes*).

109. *festinans* (F. Smith)

Larrada festinans F. Smith, 1858b:17, ♀, ♂. Syntypes: Indonesia: Celebes, now Sulawesi: no specific locality (BMNH). – F. Smith, 1863b:135 (known from Sulawesi), 1871a:365 (in catalog of Oriental Aculeata). – **As *Larra festinans*:** Kohl, 1885a:244 (new generic assignment, in checklist of world *Larra*); Dalla Torre, 1897:667 (in catalog of world Hymenoptera). – **As *Liris festinans*:** van der Vecht in R. Bohart and Menke, 1976:245 (new generic assignment, in checklist of world Sphecidae); Lomholdt, 1980a:31 (Papua New Guinea: Solomon Islands: Rennell and Bellona Islands); Tsuneki, 1982a:18 (in key to *Liris* of South Pacific islands), 19 (Papua New Guinea: Bismarck Archipelago, and Solomon Islands), 1982e:27 (Ryukyu Islands: island of Iriomote), 1982f:47 (Ryukyu Islands), 1982g:59 (known from the Ryukyu archipelago), 1983a:30 (Philippines; taxonomic comments), 47, 48 (in key to *Liris* of Philippines), 1983c:20 (New Guinea; taxonomic comments), 30 (in key to *Liris* of Papua New Guinea), 1984a:3 (Ogasawara = Bonin Islands); Cardale, 1985:235 (in catalog of Australian Sphecidae); Steiner, 1986:101 (references to papers on nesting habits); Callan, 1990a:22 (New Caledonia: no specific locality); Naumann, 1990a:23 (Norfolk and Philip Islands), 1993:185 (Australia: Queensland: Heathlands area in Cape York); Takahashi 1993:3 (Japan: island of Hachijo-Jima); Kami and Miller, 1998:57 (in checklist of Samoan insects); Smithers, 1998:46 (in checklist of insects of Norfolk Island); Yamane, Ikudome, and Terayama, 1999:514 (in Identification Guide to Crabronidae of Nansei = Ryukyu Islands, Japan); Takahashi and Shimizu, 2001:13 (Japan: Ogasawara Islands: Chichi-Jima); Hua, 2006:280 (in list of Chinese insects, geographic distribution); Haneda, Nozaka, Tano, Kurokawa, H. Murota, and T. Murota, 2007:53 (Japan: Ryukyu Archipelago: Amami Oshima Islands, as *festinans festinans*); Baños-Picón, Asís, Gayubo, and Tormos, 2009:311 (Spain: frequency of specimens collected with hand nets and in Malaise traps); Murota and Kurokawa, 2009:14 (Japan: Ryukyu Archipelago: Amami Oshima Islands, as *festinans festinans*); Takahashi, Shimizu, and Nambu, 2009:3 (Japan: Ogasawara Islands: Chichi-Jima); Takahashi, 2010:19 (Japan: in list of Hymenoptera of Ogasawara = Bonin Islands); Haneda, 2011:44 (Philippines: Palawan); Jennings, Krogmann, and Burwell, 2013:31 (in checklist of Hymenoptera of New Caledonia); Dunford, Turbyville, and Leavengood, 2014:10 (listed as medically important in Afghanistan); Koçak and Kemal, 2015:146 (in checklist of Hymenoptera of Turkey); Jahantigh, Rakhshani, Mokhtari, and Ramroodi, 2017:64 (Iran: known from Fars Province); Terayama, 2020:18 (Micronesia: Palau); Yoshida, Inahata, and Murao, 2020:62 (Japan:

Amami Islands); Pham and Antropov, 2021:317 (in key to *Liris* of Vietnam), 319 (first record from Vietnam: many localities).

Liris trifasciatus Tsuneki, 1974b:607, ♂ (as *trifasciata*, incorrect original termination), junior secondary homonym of *Liris trifasciatus* (F. Smith, 1856). Holotype: ♂, Thailand: Bangkok (T. Tano coll., Fukui). Synonymized with *Liris festinans* by Tsuneki, 1983c:20. – R. Bohart and Menke, 1976:629 (in checklist of world Sphecidae).

Liris bangkokensis Tsuneki, 1977i:4. Substitute name for *Liris trifasciatus* Tsuneki, 1977.

ssp. japonicus (Kohl)

Notogonia japonica Kohl, 1884a:357, ♀. Lectotype: ♀, Japan: Kyoto (NHMW), designated by de Beaumont, 1961f:237. – Kohl, 1885a:254 (in revision of Palearctic Larrinae). – **As *Larra japonica***: Kohl, 1885a:244 (new generic assignment, in checklist of world *Larra*); Dalla Torre, 1897:668 (in catalog of world Hymenoptera). – **As *Notogonidea japonica***: Piel, 1935a:165 (new generic assignment, nesting habits). – **As *Motes japonicus***: Tsuneki, 1962a:5 (new generic assignment, Japan: Ryukyu Islands: island of Amami-Oshima), 1962e:70 (*Motes japonicus* in Iconographia Insectorum Japonicorum, Ed. II is actually *Motes japonicus* or *Motes tisiphone*). – **As *Liris japonica***: de Beaumont, 1961f:237 (new generic assignment, relationships to *Liris praetermissa*); Tsuneki and Shimoyama, 1963:48 (Japan: Towada Prefecture); Tano, 1964:38 (Japan: Kyushu: island of Yakushima); Tsuneki, 1964h:221 (synonyms: *Larrada nigricans* F. Smith and *Larra nigricolor* Dalla Torre; actually these names belong in *Tachysphex*), 1964l:62 (in key to Larrinae of Japan and Korea), 1966g:8 (Taiwan, Ryukyu Islands; discussion), 1967b:9, 15 (in key to Larrinae of Taiwan), 34 (Taiwan), 1967i:389 (Taiwan); Haneda, 1968a:43 (Japan); Nambu, 1968b:21 (Japan: Saitama Prefecture); Nishino, 1968:25 (Japan); Itami, 1969:48 (Japan: Niigata Prefecture); Tsuneki, 1969b:13 (nesting habits), 1969e:25 (Japan: specimens in Osaka Museum of Natural History), 1969i:59 (Japan: Fukui Prefecture: Taichôdzu temple); Haneda, 1971b:29 (Taiwan); Yamada, 1971:35 (Japan: Aichi Prefecture); Tsuneki, 1971h:7 (Taiwan); Haneda, 1972a:4 (Taiwan); Tano, 1972:24 (Japan: Ryukyu Islands); Tsuneki, 1972c:3 (Taiwan; variation); T. Murota, 1973a:102 (Japan: Ryukyu Islands: Amami-Oshima Islands), 1973b:118 (Taiwan); Tsuneki, 1974a:363 (Korea), 1974b:612 (Thailand); Nambu, 1975b:61 (Japan: Saitama Prefecture); Steiner, 1986:101 (references to papers on nesting habits); Tsuneki, 1991:200 (Korea); Wu and Zhou, 1996a:76 (in revision in Economic Insect Fauna of China); Wu, Zhou, Q. Li, and Yang, 2003:813 (China: Fujian Province); Q. Li and He, 2004:1098 (in hymenopterous fauna of Zhejiang Province, China). – **As *Liris festinans japonica***: van der Vecht in R. Bohart and Menke, 1976:245 (new status, in checklist of world Sphecidae); Tsuneki, 1982b:15 (known from Korea); Paik, 1985:199 (in list of Sphecidae of Korea); Hua, 2006:280 (in list of Chinese insects, geographic distribution); Ohkusa, 2006a:24 (Japan: Honshu: Gifu Prefecture), 2007:34 (Japan: central Honshu: Aichi Prefecture); Ohkusa and Tajima, 2008:74 (Japan: central Honshu: Aichi Prefecture), 2010:12 (Japan: island of Honshu: Shiga Prefecture); N. Yamamoto, 2011:12 (Japan: Kyûshû: mainland Nagasaki Prefecture). – **As *Liris festinans japonicus***: Tsuneki, 1982g:59 (known from the Ryukyu archipelago); Porter, Stange, and Wang, 1999:8 (in checklist of Sphecidae of Taiwan); Haneda, 2003:4 (Japan: Nagasaki Prefecture: Tsushima); Kurokawa, 2003:61 (Japan: city of Fukui: Egamichou); Tano, Kurokawa, Murota, and Nozaka, 2003:31 (Japan: Nagasaki Prefecture: Tsushima); Haneda, Nosaka, Tano, Kurokawa, and Murota, 2004:32 (Japan: Gifu Prefecture); Suda, 2004:40 (Japan: Yamanashi Prefecture); Haneda, Inoue, Nozaka, Tano, Kurokawa, H. Murota, and T. Murota, 2005:65 (Japan: Fukui Prefecture: Mount Monju); Haneda, Nozaka, Tano, Kurokawa, and T. Murota, 2005:46 (Japan: Gifu Prefecture); Negoro, Haneda, and Tano, 2005:45 (Japan: Toyama Prefecture); Haneda, Nozaka, Tano, Kurokawa and T. Murota, 2006a:22 (Japan: Toyama Prefecture), 2006b:47 (Japan: Nagasaki Prefecture: Tsushima); T. Li, Cai, and Q. Li, 2007:419, 422 (in key to *Liris* of China), 2009a:117, 118 (in key to Palearctic *Liris*); J.-K. Kim, 2014:436 (in catalog of Sphecidae *sensu lato* of Korean Peninsula), 451 (recorded from Korea but not occurring there); Nagase and Kishi, 2014:22 (Japan: Izu Islands: island of Miyakejima); Ohkusa, 2014a:31 (Japan: city of Toyota: Sizen-Kansatsu-no-Mori).

ssp. manilae (Ashmead)

Notogonia manilae Ashmead, 1904d:130, ♀, ♂. Holotype: ♀, Philippines: Manila (USNM). – Ashmead, 1904d:150 (Philippines); R. Brown, 1906:687 (in catalog of Philippine Hymenoptera); Swezey, 1942:184 (Guam); F. Williams, 1945:444 (New Caledonia, preying on small crickets), 1947:318 and 333 (Fiji). – **As *Notogonidea manilae***: F. Williams, 1928:75 (new ge-

- neric assignment, revision), 1936b:125 (Solomon Islands); Swezey, 1942:184 (island of Guam); F. Williams, 1945:444 (New Caledonia; prey in Philippines: gryllid *Nemobius histrio* de Saussure); Fullaway, 1957:279 (in checklist of Hymenoptera of Fiji); Kami and Miller, 1998:57 (in checklist of Samoan insects). – **As *Motes manilae***: Yasumatsu, 1941:44 (new generic assignment, Marianas, Palaus); Krombein, 1949b:382 (in key to Sphecidae of Micronesia), 395 (Mariana and Caroline Islands), 1950b:140 (illustration of male genitalia), 142 (in key to *Liris* of Micronesia); Baltazar, 1966:331 (in catalog of Hymenoptera of Philippines). – **As *Liris manilae***: Tsuneki, 1967b:35 (new generic assignment, synonymized with *Liris japonica*). – **As *Liris japonica manilae***: Tsuneki, 1976b:71 (new status, redescription, Philippines), 1977j:269 (Taiwan). – **As *Liris festinans manilae***: T. Li, Cai, and Q. Li, 2007:420, 422 (new subspecific generic assignment, in key to *Liris* of China)
- Notogonia retiaria* R. Turner, 1908:479, ♀. Holotype: ♀, Australia: Western Australia: Perth (BMNH). Synonymized with *Notogonidea manilae* by F. Williams, 1945:444. – R. Turner, 1916e:281 (in revision of Australian *Liris*), 1917b:320 (diagnostic characters), 1919a:338 (Fiji); Perkins and Cheesman, 1928:5 (listed from Samoa); F. Williams, 1928c:33 (Samoa, illustration of male genitalia); Cheesman, 1937:206 (Vanuatu). – **As *Notogonidea retiaria***: Kami and Miller, 1998:57 (new generic assignment, in checklist of Samoan insects).
- Notogonidea williamsi* Rohwer, 1919:9, ♀. Holotype: ♀, Philippines: Luzon: Los Baños (USNM). Synonymized with *Notogonidea manilae* by F. Williams, 1928a:75. – F. Williams, 1919d:134 (Philippines: Luzon: Los Baños: nesting habits); G. Carpenter, 1930b:299 (nest closure); Piek and Spanjer, 1986:186 (in list of Sphecidae with known prey).

ssp. *praetermissus* (Richards)

- Notogonia praetermissa* Richards, 1928a:361, ♀, ♂. Holotype: ♂, France: Var: Ile de Porquerolles (BMNH). – Richards, 1928b:219 (in key to French *Notogonia*). – **As *Leptolarra praetermissa***: de Beaumont, 1940a:18 (new generic assignment, Egypt). – **As *Liris praetermissa***: de Beaumont, 1950f:405 (new generic assignment, Algeria); Bytinski-Salz, 1956:226 (Turkey: Aydın); Ceballos, 1956:375 (in catalog of Hymenoptera of Spain); Pulawski, 1958a:178 (Bulgaria: Sandanski); Suárez, 1959:56 (Spain: Almería Province; as *praetermissus*); de Beaumont, 1960a:14 (Greece: island of Rhodes), 1961f:236 (in revision of Mediterranean *Liris*); Ceballos, 1964:90 (in supplement to catalog of Spanish Sphecidae); Diniz, 1964a:7 (Portugal: Cascais, Lagoa de Albufeira, Pegões, Vale de Gaio); de Beaumont, 1965a:45 (Greece), 1967a:330 (Turkey), 1970a:400 (Afghanistan); Balthasar, 1972:301 (in Sphecid Fauna of Czechoslovakia: can be expected in the country); de Beaumont, Bytinski-Salz and Pulawski, 1973:5 (Israel); R. Bohart and Menke, 1976:247 (in checklist of world Sphecidae); Kazenas, 1978b:102, 103 (in key to Sphecidae of Kazakhstan and Central Asia); Pulawski, 1978:214 (in key to Sphecidae of European part of USSR); Guichard, 1980:227 (Oman); Pagliano, 1980:127 (Italy: Campania); Gayubo, 1982a:99 (northern Spain: Sierra de Béjar), 1982f:250 (Spain: Cádiz Province: Conil de la Frontera, Palmones, Puente Mayorga); Gayubo, 1984b:96 (Spain: previously recorded from Salamanca Province), 1984c:362 (Portugal: El Algarve Province); Gayubo and Tormos, 1984:14 (Spain: Valencia); Gayubo, 1987a:111 (Spain: Ciudad Real Province); Gayubo and Mingo, 1988:74 (Spain); Pagliano, 1990:102 (in catalog of Italian Sphecidae); Schembri, 1991:179 (first record from Malta); Torregrosa, Gayubo, Tormos, and Asís, 1993:18 (Spain: Alicante Province; as *praetermissus*); Negrisoló in Minelli, Ruffo, and La Posta, 1995b:9 (in catalog of Italian fauna, as *praetermissus*); Vicidomini, 2000b:25 (Italy: previously recorded from Campania); Pagliano and Negrisoló, 2005:352 (in Sphecid Fauna of Italy, as *praetermissus*); Vicidomini and Pignataro, 2007:15 (Italy: Provincia di Salerno: Paestum); Pagliano, 2009:183 (Italy: Sicilia: island of Lampedusa: Valle Imbriacola, as *praetermissus*); Baldock, 2014:355 (Spain: island of Mallorca, as *praetermissus*). – **As *Liris japonica praetermissa***: Tsuneki, 1964h:221 (new status). – **As *Liris festinans praetermissus***: K. Schmidt and Bitsch in Bitsch et al., 2001:203 (new subspecific generic assignment, in Sphecid Fauna of Western Europe); Schmid-Egger, 2003:754 (Italy: Sicilia: Castelammare); Cruz-Sánchez, Gayubo, González, and Torres, 2005:220 (Spain: Salamanca: San Martín del Castañar); Magdalou, 2006b:109 (France: Pyrénées-Orientales: Mas Larrieu Nature Reserve near Argelès-sur-Mer), 2006c:7 (France: Pyrénées-Orientales: Réserve Naturelle du Mas-Larrieu); Roche, 2007a:67 (in checklist of Egyptian Crabronidae), 2007b:4 (in checklist of Egyptian Ampulicidae, Sphecidae, and Crabronidae); Gayubo, González, Tormos, and Asís, 2008:138 (Spain: Salamanca: Parque Natural de Las Batuecas – Sierra de Francia); Ljubomirov and Yildirim, 2008:192 (in catalog of Crabronidae of Turkey); González, Gayubo, Asís, and Tormos, 2009:623 (Spain: Salamanca and Zamora provinces: Arribes del Duero Natural Park); T. Li, Cai, and Q. Li, 2009a:117,

118 (in key to Palearctic *Liris*); Burguet in Durand and Burguet, 2010:50 (France Département d'Ardèche: Ardèche Gorges); Tormos, Asís, Baños-Picón, and Gayubo, 2010:511 (description of mature larva); Schmid-Egger, 2011b:546 (first record from United Arab Emirates: Al-Ajban, Halta, 10 km east of Ra's al-Khaimah airport, Sharjah Desert Park, as *praeterissimus*); Gadallah, Al Dhafer, Aldryhim, Fadl, and Elgharbawy, 2013:351 (in new catalog of Sphecidae of Saudi Arabia); Bitsch, 2014:403 (France: Hérault: Viletelle, Villeveyarc); Schmid-Egger, 2014:575 (United Arab Emirates, as *pratertissimus*); Yıldırım, Ljubomirov, and Lelej, 2014:11 (distribution in Turkey by biogeographic provinces); Atbaei, Fallahzadeh, and Ljubomirov, 2015:13 (Iran: Fars Province); Mokrousov and Zryanin, 2015:42 (Uzbekistan: Kashkadarya Oblast'); Mokrousov and Popov, 2016:582 (Russia: Abkhazia, Krasnodarskiy Kray); Sadeghi, Fallahzadeh, Ostovan, Ljubomirov, and Hesami, 2016:431 (Iran: Fars Province); Schmid-Egger, Dandria, and Xuereb, 2016:80 (in checklist of Crabronidae of Maltese Islands); Yildirim, Ljubomirov, Özbek, and Yüksel, 2016:33 (Turkey: Antalya: Arapsuyu: Azmak); Antropov, 2017b:237 (in catalog of Crabroninae of Russia); Magdalou, 2017:15 (France: Pyrénées-Orientales: Réserves Naturelles Catalanes: Mas Larrieu); Fallahzadeh, Ljubomirov, Tavakoli Roodi, and Saghaei, 2018:627 (Iran: Hormozgan: Sar Kahn at 27°24'N 57°07'E); Sadeghi, Fallahzadeh, Ostovan, Ljubomirov, and Hesami, 2019a:270 (Iran: Fars: Ramjerd, and Kherameh: Dodej); Gadallah, 2020b:38 (in list of aculeate wasps of Arabian Peninsula); Ghaderipour, Khayrandish, Madjdadeh, Ebrahimi, and Schmid-Egger, 2020:118 (Iran: Kerman); Gros, 2020:402 (nesting habits); Ben Khedher, Yildirim, and Braham, 2021a:59 (Tunisia: Monastir: Bakalta: Zbed at 35°37'31.1"N 11°1'38"E); Cross, Baldock, and Wood, 2021:47 (in catalog of Sphecidae *sensu lato* of Portugal); Kaplan and Yildirim, 2021:69 (in catalog of Crabronidae of Turkey); K. Schmidt, Straka, and Bitsch in Bitsch, Antropov, Gayubo, Leclercq, Schmid-Egger, K. Schmidt, and Straka, 2021:260 (in revision of Sphecidae *sensu lato* of Europe); Kaplan and Yildirim, 2023:1685 (in checklist of Sphecidae *sensu lato* of Turkey).

As *Notogonia sculpturata*: Antiga and Bofill, 1904:10 (Spain: Cataluña Province), present correction; Mercet, 1910b:165 (listed from Spain), present correction; Berland, 1921:533 (Greece), present correction; Bernard, 1934a:62, 1935:64, and 1936b:168 (France: Var: Fréjus area; as valid name for *Notogonia praetermissa*), present correction; Nouvel and Ribaut, 1958:13 (France: Pyrénées-Orientales: Banyuls-sur-Mer area), present correction.

Leptolarra schulthessi Giner Marí, 1942a:70 and 75, ♀, ♂. Syntypes: Spain: Valencia: Torrente (MNCN). Synonymized with *Notogonia praetermissa* by de Beaumont, 1949c:346. – Giner Marí, 1943a:125 (in Sphecid Fauna of Spain); de Andrade, 1949:13 (Portugal: Évora, Vale de Gaio); Diniz, 1959:29 (Portugal: Évora, Vale de Gaio).

110. *flavinervus* (Cameron)

Leptolarra flavinerva Cameron, 1900haema:30, ♀. Holotype or syntypes: ♀, India: West Bengal: Barrackpore 20 km north of Calcutta (OXUM). – Rothney, 1903:104 (India: West Bengal: Barrackpore); Ramakrishna Aiyar, 1916:553 (in catalog of Indian aculeates described after Bingham, 1897). – As *Liris flavinervus*: R. Bohart and Menke, 1976:245 (new generic assignment, in checklist of world Sphecidae).

111. *flavipennis* (F. Williams)

Notogonidea flavipennis F. Williams, 1928:81, ♀, ♂. Holotype: ♀, Philippines: Luzon: Los Baños (Bishop Mus.). – As *Motes flavipennis*: – Baltazar, 1966:330 (new generic assignment, in catalog of Hymenoptera of Philippines). – As *Liris flavipennis*: R. Bohart and Menke, 1976:245 (new generic assignment, in checklist of world Sphecidae); Tsuneki, 1976b:59 (Philippines), 1983a:10 (Philippines; taxonomic comments); Haneda, 2011:44 (Philippines: Palawan: Calaucasan and San Rafael).

112. *flavitinctus* (Arnold)

Motes flavitincta Arnold, 1940:141, ♀, ♂. Syntypes: Zimbabwe: Bulawayo, Matopos, and Matetsi (SAM). – As *Liris flavitincta*: Arnold, 1951:160 (new generic assignment, Ghana: Accra); R. Bohart and Menke, 1976:245 (in checklist of world Sphecidae).

113. *formosus* Amarante

Notogonia bella Rohwer, 1911b:584, ♀, junior secondary homonym of *Liris bellus* (Lepeletier de Saint Fargeau, 1845). Holotype: ♀, Panama: Canal Zone: Tabernilla (USNM). – As *Liris bella*: R. Bohart and Menke, 1976:244 (new generic assignment, in checklist of world Sphecidae; Panama, Costa Rica).

Liris formosus Amarante, 2002:40. Substitute name for *Liris bellus* (Rohwer, 1911).

114. *foveiscutis* (Cameron)

Notogonia foveiscutis Cameron, 1913b:81, ♂. Holotype or syntypes: ♂, Indonesia: Western Papua (New Guinea): Saonek island near Waigeo (ZMA). – **As *Liris foveiscutis***: R. Bohart and Menke, 1976:245 (new generic assignment, in checklist of world Sphecidae); Tsuneki, 1983c:29 (main diagnostic characters).

115. *fulvipes* Fabricius

Liris fulvipes Fabricius, 1804:227, sex not stated. Holotype: ♀, South America: no specific locality (ZMUC). – van der Vecht, 1961a:21 (redescription of type); R. Bohart and Menke, 1976:245 (in checklist of world Sphecidae); Amarante, 2002:41 (in catalog of Neotropical Crabronidae). – **As *Larra fulvipes***: Kohl in Dalla Torre, 1897:667 (new generic assignment, in catalog of world Hymenoptera).

Larrada angustata Taschenberg, 1870:6, ♀. Holotype: ♀, Brazil: Minas Gerais: Lagoa Santa (Halle). Synonymized with *Liris fulvipes* by Menke in R. Bohart and Menke, 1976:245. – **As *Larra angustata***: Kohl, 1885a:241 (new generic assignment, in checklist of world *Larra*); Dalla Torre, 1897:663 (new generic assignment, in catalog of world Hymenoptera).

Motes anticus var. *rufithorax* Ducke, 1908a:49, ♂. Syntypes: Brazil: Pará: Belém and Mazagão; Minas Gerais: Barbacena (depository?). Synonymized with ... by ... – Nascimento and Overall, 1979:9 (in list of Hymenoptera described by Adolfo Ducke).

Tachysphex longiventris Cameron, 1912a:434, ♀. Holotype or syntypes: ♀, Guyana: Demerara: no specific locality (BMNH). Synonymized with *Liris fulvipes* by Menke in R. Bohart and Menke, 1976:245.

116. *fulviventris* (Guérin-Ménéville)

Lyrops fulviventris Guérin-Ménéville, 1844:440, sex not stated. Holotype or syntypes: Cuba: no specific locality (MSNG). – Cresson, 1862:238 (in catalog of North American Hymenoptera); Guiglia, 1948b:179 (type in Genova Mus.); Guiglia and Pasteels, 1961:19 (type material in Genova Mus.). – **As *Larrada fulviventris***: F. Smith, 1856:286 (new generic assignment, in catalog of Hymenoptera in British Museum); Cresson, 1865a:137 (Cuba). – **As *Larra fulviventris***: Patton, 1880b:389 (new generic assignment, in checklist of North American Larrinae); Kohl, 1885a:244 (in checklist of world *Larra*); W. Fox, 1891d:342 (Jamaica); Dalla Torre, 1897:667 (in catalog of world Hymenoptera); Stadelmann, 1897:255 (genus uncertain); Ashmead, 1900:226 (Lesser Antilles: island of Saint Vincent), 306 (in checklist of Caribbean Hymenoptera, as *fulvipennis*). – **As *Motes fulviventris***: Ashmead, 1899d:249 (new generic assignment, in checklist of North American Crabronidae); Ducke, 1908a:50 (diagnostic characters). – **As *Liris fulviventris***: Alayo Dalmau, 1973:178 (new generic assignment, in catalog of Cuban Hymenoptera), 1976:22 (in checklist of Cuban Sphecidae); R. Bohart and Menke, 1976:245 (in checklist of world Sphecidae); Nascimento and Overall, 1980:6 (Cuba); de Zayas, 1981:76 (Cuba); Amarante, 2002:41 (in catalog of Neotropical Crabronidae); Portuondo and Fernández, 2004:134 (Cuba: Sierra Maestra); Genaro, 2006:56 (in checklist of Cuban Sphecidae and Crabronidae; also: Jamaica, island of Saint Vincent); Molina Casas and E. Reyes, 2011:224, 225 (Cuba: locality records).

117. *fuliginosus* (Dahlbom)

Larra fuliginosa Dahlbom, 1843:138, ♀, ♂. Lectotype: ♀, Cuba: no specific locality (Lund), designated by Krombein, 1976b:334. – Dahlbom, 1845:472 (in key to world *Larra*); Cresson, 1862:237 (in catalog of North American Hymenoptera); Patton, 1880b:389 (in checklist of North American Larrinae); Kohl, 1885a:244 (in checklist of world *Larra*); Dalla Torre, 1897:667 (in catalog of world Hymenoptera); Ashmead, 1900:306 (in checklist of Caribbean Hymenoptera). – **As *Larrada fuliginosa***: F. Smith, 1856:288 (new generic assignment, in catalog of Hymenoptera in British Museum); Cresson, 1865a:137 (Cuba); Wolcott, 1951:842 (in review of insects of Puerto Rico; as *fuliginosa* Dahlberg). – **As *Notogonia fuliginosa***: Stadelmann, 1897:255 (new generic assignment, study of type). – **As *Motes fuliginosa***: Krombein, 1958f:188 (new generic assignment, Florida, Cuba). – **As *Liris fuliginosa***: Evans, 1972b:9 (new generic assignment, Caribbeans: island of Dominica); Alayo Dalmau, 1973:178 (in catalog of Cuban Hymenoptera), 1976:23 (in checklist of Cuban Sphecidae); R. Bohart and Menke, 1976:245 (as valid name for *Liris dahlbomi*); de Zayas, 1981:76 (Cuba). – **As *Liris fuliginosus***: Amarante, 2002:40

(in catalog of Neotropical Crabronidae); Genaro, 2004a:18 (nesting habits); Amarante, 2005:11 (is a subspecies of *Liris luctuosus*); Genaro, 2006:56 (in checklist of Cuban Sphecidae and Crabronidae; also: Florida, Mexico to Guatemala, Isla de la Juventud, Jamaica, island of Guana, Puerto Rico, Saint Vincent, Grenada, Dominica); Molina Casas and E. Reyes, 2011:224 (Cuba: locality records).

Larrada vinulenta Cresson, 1865a:138, sex not stated. Lectotype: sex not stated, Cuba: no specific locality (ANSP), designated by Cresson, 1916:96. Synonymized with *Liris fuliginosa* by Krombein, 1976b:335. – Cresson, 1873:214 (Texas); Dewitz, 1881:203 (Puerto Rico). – **As *Larra vinulenta***: Patton, 1880b:388 (new generic assignment, in checklist of North American Larrinae); Kohl, 1885a:248 (in checklist of world *Larra*); Cresson, 1887:277 (in catalog of North American Hymenoptera); W. Fox, 1891d:342 (Jamaica); Dalla Torre, 1897:675 (in catalog of world Hymenoptera); Ashmead, 1900:225 (Lesser Antilles: island of Saint Vincent), 306 (in checklist of Caribbean Hymenoptera). – **As *Notogonia vinulenta***: Stadelmann, 1897:255 (new generic assignment); Holland, 1917:295 (Cuba: Isla de Pinos, now Isla de la Juventud: Los Indios and Nueva Gerona). – **As *Ancistromma vinulenta***: Ashmead, 1899d:249 (new generic assignment, in checklist of North American Crabronidae, generic placement tentative). – **As *Notogonidea vinulenta***: Wolcott, 1951:842 (new generic assignment, in review of insects of Puerto Rico). – **As *Liris vinulenta***: Alayo Dalmau, 1973:178 (new generic assignment, in catalog of Cuban Hymenoptera), 1976:23 (in checklist of Cuban Sphecidae); R. Bohart and Menke, 1976:248 (in checklist of world Sphecidae). – **As *Liris vinulentus***: Amarante, 2002:41 (in catalog of Neotropical Crabronidae), 2005:11 (is a synonym of *Liris luctuosus fuliginosus*); Molina Casas and E. Reyes, 2011:224, 225 (Cuba: locality records).

Larrada dahlbomi Cresson, 1865a:139, ♀, conditional substitute name for *Larrada vinulenta* (as *Dahlbomi*, incorrect original capitalization). Lectotype: ♀, Cuba: no specific locality (ANSP), designated by Krombein, 1976b:334. – Dalla Torre, 1897:667 (as tentative synonym of *Larra fuliginosa*). – **As *Liris dahlbomi***: R. Bohart and Menke, 1976:245 (new generic assignment, as synonym of *Liris fuliginosa*). – **As *Liris luctuosa dahlbomi***: Krombein, 1976b:335 (new status), 1979b:1619 (in catalog of North American Hymenoptera); Krombein and Shanks Gingras, 1984:35 (in revision of North American *Liris*); Snelling, 1992:14 (Virgin Islands: island of Guana); Snelling, 1993:18 (British Virgin Islands: island of Guana).

118. *funereus* (F. Smith)

Larrada funerea F. Smith, 1863a:34, ♀. Holotype or syntypes: ♀, Indonesia: Western Papua: island of Waigeo: no specific locality (BMNH). – F. Smith, 1863b:135 (known from Waigeo), 1871a:365 (in catalog of Oriental Aculeata). – **As *Larra funerea***: Kohl, 1885a:244 (new generic assignment, in checklist of world *Larra*); Dalla Torre, 1897:668 (in catalog of world Hymenoptera). – **As *Liris funerea***: R. Bohart and Menke, 1976:245 (new generic assignment, in checklist of world Sphecidae); Tsuneki, 1983c:28 (new generic assignment, in list of *Liris* recorded from New Guinea), 29 (main diagnostic characters).

119. *fuscatus* Tsuneki

Liris fuscatus Tsuneki, 1971h:2, ♂ (as *fuscata*, incorrect original termination). Holotype: ♂, Taiwan: Chiayi Prefecture: Kuanghua (originally K. Tsuneki coll., now USNM). – Nuhn and Menke, 1994:25 (holotype in USNM); Porter, Stange, and Wang, 1999:8 (in checklist of Sphecidae of Taiwan); Hua, 2006:281 (in list of Chinese insects, geographic distribution); T. Li, Cai, and Q. Li, 2007:423 (in key to *Liris* of China).

120. *fuscinervus* (Cameron)

Notogonia fuscinerva Cameron, 1905c:224, ♀. Holotype or syntypes: ♀, India: Assam: Khasia Hills (OXUM). – Ramakrishna Aiyar, 1916:552 (in catalog of Indian aculeates described after Bingham, 1897). – **As *Liris fuscinerva***: R. Bohart and Menke, 1976:245 (new generic assignment, in checklist of world Sphecidae); Porter, Stange, and Wang, 1999:8 (in checklist of Sphecidae of Taiwan); Jonathan, Ray, and Kundu, 2000:193 (India: previously recorded from Meghalaya: East Khasi Hills). – **As *Liris fuscinervus***: Hua, 2006:281 (in list of Chinese insects, geographic distribution); T. Li, Cai, and Q. Li, 2007:419 (in key to *Liris* of China); Ma, Q. Li, Wang, Jiang, and Lu, 2018:826 (China: Shanxi: Qinling Mountains).

121. *fuscistigma* (Cameron)

Notogonia fuscistigma Cameron, 1903:122, ♀. Holotype or syntypes: ♀, India: West Bengal: Barrackpore 20 km north of Calcutta (OXUM). – Rothney, 1903:104 (India: West Bengal: Barrackpore, as *fuscipennis*); Ramakrishna Aiyar, 1916:552 (in catalog of Indian aculeates described after Bingham, 1897). – **As *Liris fuscistigma***: R. Bohart and Menke, 1976:245 (new generic assignment, in checklist of world Sphecidae).

122. *ganahlia* (Dalla Torre)

NOTE. – Madl (2014a:972) thinks that *Liris rufipes* is the valid name based on Article 59.3 of the Code which says “A junior secondary homonym replaced before 1961 is permanently invalid unless the substitute name is not in use and the relevant taxa are no longer considered congeneric ...” Hence, the replacement name, used by Bohart and Menke, 1976, and by Pulawski, 2003, is valid.

Notogonia rufipes de Saussure, 1892:511, ♀. Holotype: ♀, Madagascar: Antananarivo (MHNG). – Stadelmann, 1897:255 (valid name for the species). – **As *Motes rufipes***: Leclercq, 1961d:116 (new generic assignment, Madagascar). – **As *Liris rufipes***: Arnold, 1945:133 (new generic assignment, in revision of Madagascar Sphecidae).

Larra ganahlia Dalla Torre, 1897:668 (as *Ganahlia*, incorrect original capitalization). Substitute name for *Larra rufipes* (de Saussure, 1892) Dalla Torre, 1897, junior secondary homonym of *Larra rufipes* (F. Smith, 1858) (and also *Liris rufipes* Fabricius, 1804, now in *Stizus*). – **As *Liris ganahlia***: R. Bohart and Menke, 1976:245 (new generic assignment, in checklist of world Sphecidae); Pulawski, 2003b:797 (in checklist of Malagasy Sphecidae).

123. *gibbosus* Kohl

Liris gibbosus Kohl, 1892:222, ♀ (as *gibbosa*, incorrect original termination). Holotype or syntypes: ♀, "Arabia" (NHMW). – Kohl, 1892:228 (in key to world *Liris* s.s.); Dalla Torre, 1897:668 (in catalog of world Hymenoptera); de Beaumont, 1961f:224 (in revision of Mediterranean *Liris*); R. Bohart and Menke, 1976:245 (in checklist of world Sphecidae); Dollfuss, 1989:10 (type material in NHMW); T. Li, Cai, and Q. Li, 2009a:117 (in key to Palearctic *Liris*); Gadallah, 2020b:38 (in list of aculeate wasps of Arabian Peninsula).

124. *gowdeyi* (R. Turner)

Notogonia gowdeyi R. Turner, 1913:751, ♀, ♂. Syntypes: Uganda: Entebbe (BMNH). – **As *Notogonidea gowdeyi***: Arnold, 1923b:231 (new generic assignment, in revision of southern African Sphecidae, description of ♀, Uganda: Entebbe, as *Gowdeyi*), 1930:6 (in checklist of Afrotropical Sphecidae). – **As *Liris gowdeyi***: R. Bohart and Menke, 1976:245 (new generic assignment, in checklist of world Sphecidae).

125. *gracilicornis* (Arnold)

Notogonidea gracilicornis Arnold, 1923b:250, ♀. Holotype: ♀, Zimbabwe: Bulawayo (SAM). – Arnold, 1929c:397 (description of ♂), 1930:6 (in checklist of Afrotropical Sphecidae), 1945:132 (in revision of Madagascar Sphecidae). – **As *Liris gracilicornis***: Arnold, 1951:160 (new generic assignment, Ghana: Labadi); R. Bohart and Menke, 1976:245 (in checklist of world Sphecidae); Dollfuss, 1993a:693 (Central African Republic: Kembe); Pulawski, 2003b:797 (in checklist of Malagasy Sphecidae); Madl, 2014a:969 (in catalog of Ampulicidae, Crabronidae, and Sphecidae of Madagascar, with synonymy and locality records).

126. *gryllida* Evans

Liris gryllida Evans, 1972b:11, ♂, ♀. Holotype: ♂, Caribbeans: island of Dominica: Clarke Hall in Layou Valley (USNM). – R. Bohart and Menke, 1976:245 (in checklist of world Sphecidae); Amarante, 2002:40 (in catalog of Neotropical Crabronidae).

127. *haemorrhoidalis* (Fabricius)

Pompilus haemorrhoidalis Fabricius, 1804:198, sex not stated. Holotype: ♀, Guinea: no specific locality (ZMUC). – **As *Larrada haemorrhoidalis***: F. Smith, 1856:280 (new generic assignment, in catalog of Hymenoptera in British Museum); Taschenberg, 1870:7 (Sudan: Khartum); Walker, 1871:20 (Egypt: Cairo); A. Costa, 1875:16 (Egypt: Fayum); Girard, 1879:954 (recognition); Magretti, 1884a:250 (Sudan), 1884c:583 (Sudan, Ethiopia, Eritrea); W. Schulz, 1911b:187 (Magretti's speci-

men is a *Liris* s.s.); Innes Bey, 1912:111 (specimens recorded by Walker, 1871, now destroyed by dermestids, were collected in unknown locality). – **As *Tachytes hoemorrhoidalis*** [sic]: Radoszkowski, 1881:210 (new generic assignment, Angola). – **As *Larra haemorrhoidalis*** Kohl, 1885a:244 (new generic assignment, in checklist of world *Larra*); Dalla Torre, 1897:668 (in catalog of world Hymenoptera); Magretti, 1898:50 (Somalia: Gubala-Ginda); Casolari and Casolari Moreno, 1980:112 (specimens in M. Spinola collection, Torino); Pagliano, 2008:545 (specimens in M. Spinola collection, Torino). – **As *Lyrops haemorrhoidalis***: Guérin-Ménéville, 1844:439 (new generic assignment, synonymy); Casolari and Casolari Moreno, 1980:112 (specimen in M. Spinola collection, Torino); Pagliano, 2008:545 (specimen in M. Spinola collection, Torino). – **As *Liris haemorrhoidalis***: Gerstaecker in Peters, 1858:510 (new generic assignment, Mozambique); Gerstaecker, 1862:477 (Mozambique: Tette); Kohl, 1885a:256 (in revision of Palearctic Larrinae); nec Cameron, 1889c:130 (= *Liris deplanata*); Schletterer, 1889b:1128 (Canary Islands: island of Santa Cruz); Kohl, 1892:227 and 229 (in key to world *Liris* s.s.), 1883e:183 (Tanzania: Pongue), 1894:342 (Mozambique: no specific locality); Fox, 1896e:553 (Ethiopia: Bale Province: Sheikh Husein, now Shek Husen); Bingham, 1897:207 (in revision of Indian Sphecidae), 1898a:104 (Yemen: Aden, as *hoemorrhoidalis*), 1902:209 (South Africa, Malawi); Kohl, 1906a:221 (Yemen: Aden, island of Socotra); Cameron, 1908a:285 (Tanzania: Mount Meru, Usambara Mountains), 1910:133 (South Africa: Mpumalanga: Kranspoort); Mercet, 1910b:164 (listed from Spain); Bischoff, 1913c:71 (Zimbabwe: Bulawayo); von Schulthess, 1914:286 (Cameroon); Storey, 1916:110 (Egypt: Alfia, Abu Tig, Faraskur, Maadi, Nag Hamadi, Shubra); Morice, 1921:823 (Iraq: Amara); Arnold, 1923b:251 (in revision of southern African Sphecidae); Maidl, 1924:239 (Sudan: Sennar); Alfken, 1925:71 (description of ♂); G. Carpenter, 1929:7 (mimicked by *Hoplistomerus serripes* F., a dasypogonid); Arnold, 1930:7 (in checklist of Afrotropical Sphecidae); Schouteden, 1930:92 (Zaire); Guiglia, 1932:126 (Eritrea: Cheren), 1932b:100 (Libya: Fezzan: Brak); Nadig, 1933:85 (Morocco: Marrakech); Guiglia, 1934b:302 (Libya: bibliography and summary of locality records); Arnold, 1935a:498 (South Africa: Kalahari); Guiglia, 1936:6 (Libya: Fezzan: Brak); Giordani Soika, 1939a:169 (Eritrea: Tessenei), 1939c:101 (Eritrea: Asmara); Guiglia, 1939a:202 (Ethiopia: Gonder), 1939c:189 (Libya: Fezzan: Techertiba, Tunin), 1940d:200 (Somalia), 1940e:293 (Eritrea: Tessenei), 1942b:233 (Libya); Arnold, 1943:81 (Zaire); Giner Marí, 1943a:122 (in Sphecid Fauna of Spain); Guiglia, 1943c:76 (Ethiopia: Gamo Gofa: Sagan – Omo region); Giner Marí, 1947:25 (Western Sahara); de Beaumont, 1950d:14 (Egypt: Siwa oasis); Guiglia, 1950:258 (Ethiopia: Gamo Gofa, Caschei); Balthasar, 1954b:270 (Palestine: Jerusalem, Tiberias); de Beaumont, 1954b:3 (Canary Islands), 1955a:170 (Morocco); Ceballos, 1956:374 (in catalog of Hymenoptera of Spain); de Beaumont, 1956a:195 (Libya), 1956d:2 (Cabo Verde Islands); Guiglia, 1956:308 (Somalia: Mijertins: Bogha Aled); de Beaumont, 1961e:4 (Iraq: Abu Ghuraib, Kufa), 1961f:222 (in revision of Mediterranean *Liris*); van der Vecht, 1961a:19 (study of holotype); Ceballos, 1964:89 (in supplement to catalog of Spanish Sphecidae); Derwesh, 1965:70 (Iraq: no specific locality); de Beaumont, 1968a:260 (Canary Islands; bibliographic references to Canary Islands records); I. Robertson, 1969:480 (Tanzania: Ukiriguru); Simon Thomas, 1969a:120 (Canary Islands: island of Tenerife); de Beaumont, 1970a:399 (Afghanistan), 1970c:14 (Iran: Baluchistan); de Beaumont, Bytinski-Salz and Pulawski, 1973:4 (Israel); R. Bohart and Menke, 1976:245 (in checklist of world Sphecidae); Al-Ali, 1977:100 (Iraq: Baghdad); Kazenas, 1978b:102, 103 (in key to Sphecidae of Kazakhstan and Central Asia); Guichard, 1980:226 (Oman); Wolf, 1980:72 (Canary Islands); Abdu and Shaumar, 1985:229 (Qatar: Abu Samrah, Al Zubarah); Piek and Spanjer, 1986:185 (in list of Sphecidae with known prey); Pagliano, 1990:102 (in catalog of Italian Sphecidae: recorded from Sicily by Guiglia, 1932); Dollfuss, 1993a:693 (Central African Republic: Kembe); Hohmann, La Roche, Ortega, and Barquín, 1993:219 (detailed locality records from Canary Islands); Simon Thomas and Wiering, 1993:404 (Cape Verde Islands); Negrisoló in Minelli, Ruffo, and La Posta, 1995b:9 (in catalog of Italian fauna: Sicily); nec Melo, 2000:105 (= *Liris magnificus*); K. Schmidt and Bitsch in Bitsch et al., 2001:203 (in Sphecid Fauna of Western Europe); Ebrahimi, 2005:125 (in key to selected Iranian Sphecidae); Pagliano and Negrisoló, 2005:350 (in Sphecid Fauna of Italy); Roche, 2007a:65 (in checklist of Egyptian Crabronidae), 2007b:4 (in checklist of Egyptian Ampulicidae, Sphecidae, and Crabronidae); T. Li, Cai, and Q. Li, 2009a:117, 118 (in key to Palearctic *Liris*); Gadallah, Al Dhafer, Aldryhim, Fadl, and Elgharbawy, 2013:351 (in new catalog of Sphecidae of Saudi Arabia); Dunford, Turbyville, and Leavengood, 2014:10 (listed as medically important in Afghanistan); Ebrahimi, 2014:37 (Iran: Bushehr, Sistān-Baluchestān, and Tehrān provinces); Schmid-Egger, 2014:575 (United Arab Emirates), 577 (color photographs of female), 578 (color photograph of male); Augul, 2015:279 (in revision of *Liris* of Iraq);

Jahantigh, Rakhshani, Mokhtari, and Ramroodi, 2017:64 (Iran: known from Bushehr, Sistan-o Baluchestan, and Tehran provinces); Fallahzadeh, Ljubomirov, Tavakoli Roodi, and Saghaei, 2018:628 (Iran: Hormozgan: Sar Kahnian at 27°24'N 57°07'E; Ben Khedher, Yildirim, Braham, Ben Chaaban, 2019:194 (first record from Tunisia: Tozeur Province: Nefta oasis at 33°52'39.1"N 7°52'34.9"E and Tibebsa oasis at 33°55'27.3"N 8°08'44.5", redescription); Gadallah, 2020b:38 (in list of aculeate wasps of Arabian Peninsula); Ghaderipour, Khayrandish, Madjdzadeh, Ebrahimi, and Schmid-Egger, 2020:118 (Iran: Kerman); Rezaei, Fallahzadeh, Dousti, and Saghaei, 2020b:12 (Iran: Fars: Estahban: Mobarak Abad at 29°15'14"N 53°56'46"E); K. Schmidt, Straka, and Bitsch in Bitsch, Antropov, Gayubo, Leclercq, Schmid-Egger, K. Schmidt, and Straka, 2021:260F (in revision of Sphecidae *sensu lato* of Europe); Mawadda and Girish Kumar, 2023:113 (in checklist of Crabroninae of Northern India).

Lyrops auriventris Guérin-Ménéville, 1835:pl. 70, Fig. 9, ♂. Holotype: ♂, origin unknown (depository?). Synonymized with *Lyrops haemorrhoidalis* by Guérin-Ménéville, 1844:440.

Lyrops savignyi Spinola, 1839:476, ♀ (as *Savignyi*, incorrect original capitalization). Lectotype: ♀, Egypt: no specific locality (M. Spinola collection, Torino), designated by de Beaumont, 1952e:47. Synonymized with *Larra haemorrhoidalis* by Dalla Torre, 1897:668, synonymy confirmed by de Beaumont, 1952e:47. – **As *Tachytes savignyi***: Radoszkowski, 1876b:135 (new generic assignment, Egypt). – **As *Larra savignyi***: Casolari and Casolari Moreno, 1980:112 (new generic assignment, specimens in M. Spinola collection, Torino); Pagliano, 2008:544 (specimens in M. Spinola collection, Torino). – **As *Liris savignyi***: Dahlbom, 1845:471 (new generic assignment, in key to World *Liris* s.s., as *savignyi* Fabricius).

Liris orichalcea Dahlbom, 1843:135, ♂. Holotype: Guinea: no specific locality (Lund). Synonymized with *Liris savignyi* by Dahlbom, 1845:471.

Tachytes illudens Lapeletier de Saint Fargeau, 1845:249, ♀. Syntypes: ♀, Egypt: no specific locality; and Africa: Galam (originally Serville coll, now?). Synonymized with *Larra haemorrhoidalis* by Dalla Torre, 1897:668.

Larrada haemorrhoidalis var. *parva* Magretti, 1884a:250. ♀, p♂. Syntypes: Sudan: no specific locality (MSNG).

Liris rubricans Pérez, 1895a:196, ♀. Holotype or syntypes: ♀, Canary Islands: island of Gran Canaria: no specific locality (MNHN). Synonymized with *Liris haemorrhoidalis* by Kohl, 1906a:221 – Báez and Ortega, 1978:192 (Canary Islands). – **As *Larra rubricans***: Kohl in Dalla Torre, 1897:673 (new generic assignment, in catalog of world Hymenoptera).

128. *hanedai* Tsuneki

As *Liris* sp.: Haneda, 1971:30 (Taiwan), corrected to *Liris hanedai* by Tsuneki, 1971h:4.

Liris hanedai Tsuneki, 1971h:4, ♂. Holotype: ♂, Taiwan: Chiayi Prefecture: Chuchi (originally K. Tsuneki coll., now Hyogo Mus.). – Haneda, 1972a:3 (Taiwan); Tsuneki, 1983a:48 (in key to *Liris* of Philippines), 109 (comparison with *Liris robustoides*); Tano, 1995:43 (holotype in K. Tsuneki collection); Hashimoto and Nakanishi, 1997:17 (holotype transferred to Hyogo Mus.); Porter, Stange, and Wang, 1999:8 (in checklist of Sphecidae of Taiwan); Hua, 2006:281 (in list of Chinese insects, geographic distribution); T. Li, Cai, and Q. Li, 2007:423 (in key to *Liris* of China).

129. *huonensis* Tsuneki

Liris huonensis Tsuneki, 1983c:15, ♀ (subgenus *Leptolarra*). Holotype: ♀, Papua New Guinea: Huon Gulf: no specific locality (TMB). – Tsuneki, 1983c:30 (in key to *Liris* of Papua New Guinea).

130. *inca* Amarante

Tachytes peruanus Brèthes, 1926:45, sex not stated, junior secondary homonym of *Liris peruanus* (Brèthes, 1924). Holotype or syntypes: Peru: Cuzco (Buenos Aires). – **As *Liris peruana***: R. Bohart in R. Bohart and Menke, 1976:247 (new generic assignment, in checklist of world Sphecidae); Genise, 1990:27 (type material in MACN); Rasmussen and Asenjo, 2009:10 (in checklist of Crabronidae of Peru).

Liris inca Amarante, 2002:40. Substitute name for *Liris peruanus* (Brèthes, 1924).

131. *incertus* Arnold

Liris incertus Arnold, 1945:127, ♀ (as *incerta*, incorrect original termination). Syntypes: ♀, Madagascar: Behara, Bekily, Ranomafana, Rogez (MNHN). – R. Bohart and Menke, 1976:246 (in checklist of world Sphecidae). – **As *Motes incerta***:

Leclercq, 1960a:97 (new generic assignment, Madagascar), 1961d:113 (Madagascar; comparison with *Liris dejectus*); Madl, 2014a:970 (in catalog of Ampulicidae, Crabronidae, and Sphecidae of Madagascar, with synonymy and locality records). – **As *Liris incertus***: Pulawski, 2003b:797 (in checklist of Malagasy Sphecidae).

132. *indicus* (Cameron)

Notogonia indica Cameron, 1903b:120, ♀. Holotype or syntypes: ♀, India: West Bengal: Barrackpore 20 km north of Calcutta (OXUM). – Rothney, 1903:104 (India: West Bengal: Barrackpore); Ramakrishna Aiyar, 1916:552 (in catalog of Indian aculeates described after Bingham, 1897). – **As *Liris indica***: R. Bohart and Menke, 1976:246 (new generic assignment, in checklist of world Sphecidae).

133. *infrunitus* Krombein and Shanks Gingras

Liris infrunitus Krombein and Shanks Gingras, 1984:69, ♂. Holotype: ♂, Mexico, Morelos: 3 mi. north of Alpuyeca (USNM). – Amarante, 2002:40 (in catalog of Neotropical Crabronidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:664 (in checklist of Mexican Sphecidae).

134. *inopinatus* de Beaumont

Liris inopinatus de Beaumont, 1961f:246, ♀, ♂ (as *inopinata*, incorrect original termination). Holotype: ♀, Cyprus: Zakaki (Lausanne). – de Beaumont, 1965a:46 (Greece); de Beaumont, Bytinski-Salz and Pulawski, 1973:5 (Israel); R. Bohart and Menke, 1976:246 (in checklist of world Sphecidae). – **As *Liris inopinatus***: K. Schmidt and Bitsch in Bitsch et al., 2001:204 (in Sphecidae Fauna of Western Europe); T. Li, Cai, and Q. Li, 2009a:117, 119 (in key to Palearctic *Liris*); Çubuk and Gülmez, 2013:34 (first record from Turkey: Tokat Province: Lâdik road, Erbaa, and Kömeç); Yıldırım, Ljubomirov, and Lelej, 2014:11 (distribution in Turkey by biogeographic provinces); Koçak and Kemal, 2015:146 (in checklist of Hymenoptera of Turkey); Mokrousov, Shlyakhtenok, and Grebennikov, 2016:27 (first record from Russia: Astrakhan' Oblast': Volzhski village at 46.965°N 47.53°E); Antropov, 2017b:237 (in catalog of Crabroninae of Russia); Kaplan and Yildirim, 2021:69 (in catalog of Crabronidae of Turkey); K. Schmidt, Straka, and Bitsch in Bitsch, Antropov, Gayubo, Leclercq, Schmid-Egger, K. Schmidt, and Straka, 2021:261 (in revision of Sphecidae *sensu lato* of Europe); Kaplan and Yildirim, 2023:1685 (in checklist of Sphecidae *sensu lato* of Turkey); Gülmez, Çubuk, and Can, 2025:169 (Turkey: Çanakkale: Kelkit River Valley).

135. *insularis* (de Saussure)

Larrada insularis de Saussure, 1867:73, ♀. Holotype or syntypes: India: Nicobar Islands: Tellushong (NHMW). – Cameron, 1900b:77 (not included in Bingham, 1897); Ramakrishna Aiyar, 1916:552 (in catalog of Indian aculeates described after Bingham, 1897). – **As *Larra insularis***: Kohl, 1885a:244 (new generic assignment, in checklist of world *Larra*); Dalla Torre, 1897:669 (in catalog of world Hymenoptera). – **As *Liris insularis***: R. Bohart and Menke, 1976:246 (new generic assignment, in checklist of world Sphecidae); Dollfuss, 1989:10 (type material in NHMW).

136. *intermedius* (Cameron)

Notogonia intermedia Cameron, 1903b:118, ♀. Holotype or syntypes: ♀, India: West Bengal: Barrackpore 20 km north of Calcutta (OXUM). – Rothney, 1903:104 (India: West Bengal: Barrackpore); Ramakrishna Aiyar, 1916:552 (in catalog of Indian aculeates described after Bingham, 1897). – **As *Liris intermedia***: R. Bohart and Menke, 1976:246 (new generic assignment, in checklist of world Sphecidae). – **As *Liris intermedius***: Hua, 2006:281 (in list of Chinese insects, geographic distribution).

137. *iridipennis* (Maidl) (preoccupied)

Notogonia iridipennis Maidl, 1925a:385, ♀, ♂, junior secondary homonym of *Liris iridipennis* (Cameron, 1900). Syntypes: Indonesia: Sumatra: no specific locality (NHMW). – **As *Liris iridipennis***: R. Bohart and Menke, 1976:246 (new generic assignment, in checklist of world Sphecidae); Dollfuss, 1989:10 (type material in NHMW).

138. *iriomotensis* Tsuneki

Liris iriomotensis Tsuneki, 1972b:17, ♂. Holotype: ♂, Ryukyu Islands: island of Iriomote (originally K. Tsuneki coll., now Hyogo Mus.). – R. Bohart and Menke, 1976:246 (in checklist of world Sphecidae); Tsuneki, 1982e:26 (Ryukyu Islands: island

of Iriomote), 1982g:59 (known from the Ryukyu archipelago); Tano, 1994a:5 (holotype in K. Tsuneki collection); Hashimoto and Nakanishi, 1997:17 (holotype transferred to Hyogo Mus.); Yamane, Ikudome, and Terayama, 1999:514 (in Identification Guide to Crabronidae of Nansei = Ryukyu Islands, Japan); T. Li, Cai, and Q. Li, 2009a:119 (in key to Palearctic *Liris*).

139. *irroratus* (F. Smith)

Larrada irrorata F. Smith, 1856:284, ♀. Holotype or syntypes: ♀, Senegal: no specific locality (BMNH). – **As *Larra irrorata*:** Kohl, 1885a:245 (new generic assignment, in checklist of world *Larra*); Dalla Torre, 1897:669 (in catalog of world Hymenoptera). – **As *Notogonia irrorata*:** R. Turner, 1917b:320 (new generic assignment; Senegal to Uganda). – **As *Notogonidea irrorata*:** Arnold, 1923b:233 (new generic assignment, in revision of southern African Sphecidae), 1930:6 (in checklist of Afrotropical Sphecidae); Schouteden, 1930:91 (Zaire). – **As *Liris irrorata*:** R. Bohart and Menke, 1976:246 (new generic assignment, in checklist of world Sphecidae).

Larra fraudulenta Kohl, 1894:303, ♀. Holotype or syntypes: ♀, Sierra Leone: no specific locality (MRAC). Synonymized with *Notogonia irrorata* by R. Turner, 1917b:320. – Dalla Torre, 1897:667 (in catalog of world Hymenoptera).

ssp. tibialis Arnold

Notogonidea irrorata var. *tibialis* Arnold, 1932:1, ♀. Holotype: ♀, Zaire: Ubangi District: Libenge (Zool. Mus. Hamburg). – **As *Liris irrorata tibialis*:** R. Bohart and Menke, 1976:246 (new generic assignment, new status, in checklist of world Sphecidae).

140. *ituriensis* Benoit

Liris ituriensis Benoit, 1951:128, ♀. Holotype: ♀, Zaire: Ituri: Geti (MRAC). – R. Bohart and Menke, 1976:246 (in checklist of world Sphecidae).

141. *jaculator* (F. Smith)

Larrada jaculator F. Smith, 1856:279, ♀. Holotype: ♀, India: North Bengal: no specific locality (BMNH). – F. Smith, 1871a:364 (in catalog of Oriental Aculeata). – **As *Larra jaculator*:** Kohl, 1885a:244 (new generic assignment, in checklist of world *Larra*); Dalla Torre, 1897:668 (in catalog of world Hymenoptera). – **As *Notogonia jaculator*:** Cameron, 1889c:129 (new generic assignment, redescription; India: West Bengal: Barrackpore, Pune); Bingham, 1896a:442 (Sri Lanka: Pundaluoya), 1897:203 (redescription, as *jaculatrix*); Rothney, 1903:104 (India: West Bengal: Barrackpore, as *jaculatrix*); Cameron, 1905k:64 (Java, as *jaculatrix*); Giner Marí, 1945c:85s4 (India: Maharashtra: Khandala; as *jaculatrix*); van Vondel, 1995:29 (specimens from Java and Sumatra in Natuurmuseum Rotterdam, as *jaculatrix*). – **As *Motes jaculator*:** Chhotani and Ray, 1975:27 (new generic assignment, India: Rajasthan: Devdyan). – **As *Liris jaculator*:** Pulawski, 1975a:319 (new generic assignment, diagnostic characters); R. Bohart and Menke, 1976:246 (in checklist of world Sphecidae); S. Gupta, 1995:86 (India: Uttar Pradesh); Mawadda and Girish Kumar, 2023:113 (in checklist of Crabroninae of Northern India).

Notogonia chapmani Cameron, 1900a:25, ♀ (as *Chapmani*, incorrect original capitalization). Holotype or syntypes: ♀, India: Himalayas: no specific locality (BMNH). Synonymized with *Liris jaculator* by Pulawski, 1975a:319. – Ramakrishna Aiyar, 1916:552 (in catalog of Indian aculeates described after Bingham, 1897).

142. *jucundus* Arnold

Liris jucundus Arnold, 1959:329, ♀ (as *jucunda*, incorrect original termination). Holotype: ♀, Tanzania: Rukwa Valley (BMNH). – R. Bohart and Menke, 1976:246 (in checklist of world Sphecidae).

143. *kalilianus* Tsuneki

Liris kalilianus Tsuneki, 1982a:17, ♀ (as *kaliliana*, incorrect original termination). Holotype: ♀, Papua New Guinea: New Ireland: Kalili Bay: Danu (ZMUC). – Tsuneki, 1982a:13 (in key to *Liris* of South Pacific islands).

144. *karnyi* (Maidl)

Notogonidea karnyi Maidl, 1927:409, ♀. Holotype: ♀, Sumatra: Wai Lima: Lampongs (NHMW). – **As *Liris karnyi*:** R. Bohart and Menke, 1976:246 (new generic assignment, in checklist of world Sphecidae).

145. keiseri (Leclercq)

Motes keiseri Leclercq, 1961d:114. Holotype: ♀, Madagascar: Tamatave Province: Fampanambo (MHNB). – **As *Liris keiseri***: R. Bohart and Menke, 1976:246 (new generic assignment, in checklist of world Sphecidae); Pulawski, 2003b:797 (in checklist of Malagasy Sphecidae); Madl, 2014a:970 (in catalog of Ampulicidae, Crabronidae, and Sphecidae of Madagascar, with synonymy and locality records).

146. khasiana (Cameron)

Notogonia khasiana Cameron, 1905c:225, ♀. Holotype or syntypes: ♀, India: Assam: Khasia Hills (OXUM). – Ramakrishna Aiyar, 1916:552 (in catalog of Indian aculeates described after Bingham, 1897). – **As *Liris khasiana***: R. Bohart and Menke, 1976:246 (new generic assignment, in checklist of world Sphecidae); Jonathan, Ray, and Kundu, 2000:194 (India: previously recorded from Meghalaya: East Khasi Hills).

147. krombeini Menke

Liris williamsi Krombein, 1949b:398, ♀, junior secondary homonym of *Liris williamsi* (Rohwer, 1919). Holotype: ♀, Micronesia: Palau Islands: island of Koror (USNM). – Krombein, 1949b:383 (in key to Sphecidae of Micronesia), 1950b:142 (in key to *Liris* of Micronesia); Tsuneki, 1982a:13 (in key to *Liris* of South Pacific islands).

Liris krombeini Menke in R. Bohart and Menke, 1976:246. Substitute name for *Liris williamsi* Krombein. – Terayama, 2020:18 (Micronesia: Palau)

148. kuchingensis (Cameron)

Notogonia kuchingensis Cameron, 1909a:73, ♂. Holotype or syntypes: ♂, Malaysia: Sarawak (in Borneo): Kuching (BMNH). – **As *Liris kuchingensis***: R. Bohart and Menke, 1976:246 (new generic assignment, in checklist of world Sphecidae).

149. labiatus (Fabricius)

Sphex labiatus Fabricius, 1793:211, sex not stated (as *labiata*, incorrect original termination). Lectotype: ♀, Caribbean Islands: no specific locality (ZMUC), designated by van der Vecht, 1961a:22. – **As *Pompilus labiatus***: Fabricius, 1798:247 (new generic assignment, redescription), 1804:191 (redescription); Dahlbom, 1845:XIX (specimens in collection Fabricius are *Tachytes murinus*). – **As *Tachytes labiatus***: Dahlbom, 1845:469 (new generic assignment, in key to world *Tachytes*); F. Smith, 1856:306 (new generic assignment, in catalog of Hymenoptera in British Museum); A. Costa, 1862a:17 (specimen from Brazil in Museo Zoologico di Napoli); Dalla Torre, 1897:691 (in catalog of world Hymenoptera). – **As *Liris labiata***: van der Vecht, 1961a:22 (new generic assignment, redescription, description of ♂); Evans, 1972b:11 (Caribbeans: island of Dominica); Alayo Dalmau, 1976:23 (in checklist of Cuban Sphecidae); R. Bohart and Menke, 1976:246 (in checklist of world Sphecidae); Snelling, 2005:290 (British Virgin Islands: island of Guana). – **As *Liris labiatus***: Amarante, 2002:40 (in catalog of Neotropical Crabronidae); Genaro, 2006:56 (in checklist of Cuban Sphecidae and Crabronidae; also: Hispaniola, island of Guana, Puerto Rico, Dominica, Barbados); Perez-Gelabert, 2008:241 (in list of arthropods of island of Hispaniola); Madl, 2014a:997 (recorded from island of Réunion by Sichel, 1862, and de Saussure, 1892:476, footnote); Molina Casas and E. Reyes, 2011:224, 225 (Cuba: locality records).

Larrada ignipennis F. Smith, 1856:288, ♀, ♂. Syntypes: Dominican Republic: no specific locality (BMNH). Synonymized with *Liris labiata* by Evans, 1972b:11. – Cresson, 1862:237 (in catalog of North American Hymenoptera), 1865a:137 (Cuba); Dewitz, 1881:203 (Puerto Rico). – **As *Larra ignipennis***: Patton, 1880b:388 (new generic assignment, in checklist of North American Larrinae); Kohl, 1885a:244 (in checklist of world *Larra*); Dalla Torre, 1897:669 (in catalog of world Hymenoptera); Ashmead, 1900:306 (in checklist of Caribbean Hymenoptera). – **As *Notogonia ignipennis***: Stadelmann, 1897:255 (new generic assignment); W. Schulz, 1903:479 (Haiti, redescription); Wolcott, 1923:44 (in review of insects of Puerto Rico); Viereck, 1925:11 (Barbados). – **As *Motes ignipennis***: Wolcott, 1951:842 (new generic assignment, in review of insects of Puerto Rico). – **As *Liris ignipennis***: Alayo Dalmau, 1973:178 (new generic assignment, in catalog of Cuban Hymenoptera); Snelling, 1992:14 (Virgin Islands: island of Guana), 1993:18 (British Virgin Islands: island of Guana).

150. *laboriosus* (F. Smith)

Larrada laboriosa F. Smith, 1856:278, ♀. Syntypes: ♀, Philippines: no specific locality (BMNH). – F. Smith, 1871a:364 (in catalog of Oriental Aculeata). – **As *Larra laboriosa***: Kohl, 1885a:245 (new generic assignment, in checklist of world *Larra*); Cameron, 1889c:125 (new generic assignment, in list of Oriental Sphecidae); Dalla Torre, 1897:669 (in catalog of world Hymenoptera). – **As *Notogonia laboriosa***: Cameron, 1890c:314 (new generic assignment, as *laborosa*); Bingham, 1896a:442 (bibliographic references), 1897:204 (redescription, Burma); Ashmead, 1904a:6 (Philippines), 1904d:150 (Philippines); Bingham, 1905:43 (Malaysia: Cape Patani); R. Brown, 1906:687 (in catalog of Philippine Hymenoptera); nec Matsumura and Uchida, 1926:... (= *Liris difficilis*). – **As *Notogonidea laboriosa***: F. Williams, 1928a:73 (new generic assignment, in revision of Larrini of Philippines), 1936b:125 (Solomon Islands). – **As *Motes laboriosus***: Krombein, 1949b:383 (in key to Sphecidae of Micronesia), 394 (new generic assignment, Mariana Islands); Baltazar, 1966:330 (in catalog of Hymenoptera of Philippines). – **As *Liris laboriosa***: Tsuneki, 1967b:10, 14 (in key to Larrinae of Taiwan), 30 (new generic assignment, Taiwan), 1971h:4 (Taiwan); Murota, 1973b:118 (Taiwan); Tsuneki, 1974b:602 (Thailand); R. Bohart and Menke, 1976:246 (in checklist of world Sphecidae); Tsuneki, 1976b:64 (Philippines, additional recognition characters), 72 (insertion into key to *Liris* of Williams, 1928a), 1977j:268 (Taiwan: Kagi, Taihanroku, Takao), 1982a:17, 18 (in key to *Liris* of South Pacific islands), 1982e:27 (Taiwan), S. Gupta, 1995:86 (India: Uttar Pradesh); Porter, Stange, and Wang, 1999:8 (in checklist of Sphecidae of Taiwan); Jonathan, Ray, and Kundu, 2000:194 (India: Meghalaya: East Garo Hills: Songsak); Ohl and Linde, 2003:150 (number of ovarioles). – **As *Liris laboriosus***: Tsuneki, 1983a:14 (Philippines; discussion of species identity), 45, 48 (in key to *Liris* of Philippines), 1983b:5 (study of holotype); T. Li, Cai, and Q. Li, 2007:420, 422 (in key to *Liris* of China); Haneda, 2011:44 (Philippines: Palawan: near Brookes and Puerto Princesa); Pham and Antropov, 2021:317 (in key to *Liris* of Vietnam), 319 (first record from Vietnam: Hanoi: Hoa Lac and Thach That); Mawadda and Girish Kumar, 2023:113 (in checklist of Crabroninae of Northern India).

Notogonia crawfordi Rohwer, 1910c:659, ♀. Holotype: ♀, Philippines: Luzon: Manila (USNM). Synonymized with *Liris laboriosus* by F. Williams, 1928a:73.

As *Liris* sp.: Haneda, 1971:30 (Taiwan), corrected to *Liris laboriosus* by Tsuneki, 1971h:4.

151. *larriiformis* (F. Williams)

Notogonidea larriiformis F. Williams, 1928a:73, ♀, ♂. Holotype: ♀, Philippines: Luzon: Los Baños (Bishop Mus.). – **As *Motes larriiformis***: Iwata, 1965:107 (new generic assignment, number of oocytes); Baltazar, 1966:331 (in catalog of Hymenoptera of Philippines). – **As *Liris larriiformis***: Iwata and Yoshikawa, 1961:399 (new generic assignment, Thailand), 405 (prey); Tsuneki, 1966g:4 (Taiwan), 1967b:10, 15 (in key to Larrinae of Taiwan), 34 (Taiwan), 1967i:389 (Taiwan); R. Bohart and Menke, 1976:246 (in checklist of world Sphecidae); Tsuneki, 1983a:15 (Philippines; additional description), 45, 48 (in key to *Liris* of Philippines); Porter, Stange, and Wang, 1999:8 (in checklist of Sphecidae of Taiwan); Ohl and Linde, 2003:150 (number of ovarioles); T. Li, Cai, and Q. Li, 2007:420 (in key to *Liris* of China); Pham and Antropov, 2021:317 (in key to *Liris* of Vietnam), 319 (first record from Vietnam: Hanoi and Son La provinces).

152. *larroides* (F. Williams)

Motes larroides F. Williams, 1928:69, ♀, ♂. Holotype: ♀, Philippines: Luzon: Los Baños (Bishop Mus.). – Baltazar, 1966:331 (in catalog of Hymenoptera of Philippines); Tsuneki, 1974b:599 (Thailand). – **As *Liris larroides***: R. Bohart and Menke, 1976:245 (new generic assignment, as tentative synonym of *Liris flavinervus*), 246 (in checklist of world Sphecidae); Tsuneki, 1983a:9 (Philippines).

ssp. *taiwanus* (Tsuneki)

Motes larroides taiwanus Tsuneki, 1967b:25, ♀, ♂. Holotype: ♀, Taiwan: Ilan Prefecture: Tsukeng (originally K. Tsuneki coll., now USNM). – Tsuneki, 1967b:9, 13 (in key to Larrinae of Taiwan), 1971h:2 (Taiwan); Haneda, 1972a:3 (Taiwan); Murota, 1973b:118 (Taiwan). – **As *Liris larroides taiwanus***: R. Bohart and Menke, 1976:246 (new generic assignment, in checklist of world Sphecidae); Tsuneki, 1977j:268 (Taiwan: Taihorinsho); Nuhn and Menke, 1994:26 (holotype transferred to USNM); Wu and Zhou, 1996a:82 (in revision in Economic Insect Fauna of China); Porter, Stange, and Wang, 1999:8 (in checklist of

Sphecidae of Taiwan); Hua, 2006:281 (in list of Chinese insects, geographic distribution); T. Li, Cai, and Q. Li, 2007:418, 421 (in key to *Liris* of China).

153. *laterisetosus* (Spinola)

Larra laterisetosa Spinola, 1851b:42, ♀. Holotype: ♀, Brazil: Pará: Belém (Torino). – Kohl, 1885a:245 (in checklist of world *Larra*); Dalla Torre, 1897:669 (in catalog of world Hymenoptera); Casolari and Casolari Moreno, 1980:113 (specimens in M. Spinola collection, Torino); Pagliano, 2011a:111 (specimen in M. Spinola collection, Torino, was designated as holotype by Menke). – **As *Larrada laterisetosa***: F. Smith, 1856:289 (new generic assignment, in catalog of Hymenoptera in British Museum). – **As *Liris laterisetosa***: Menke in R. Bohart and Menke, 1976:246 (new generic assignment, in checklist of world Sphecidae). – **As *Liris laterisetosus***: Amarante, 2002:40 (in catalog of Neotropical Crabronidae).

Larra laterisetosa Spinola, 1853:58. Objective synonym of *Larra laterisetosa* Spinola, 1851.

154. *lemkamin* Tsuneki

Liris lemkamin Tsuneki, 1982a:16, ♀. Holotype: ♀, Papua New Guinea: New Ireland: Lemkamin (ZMUC). – Tsuneki, 1982a:12 (in key to *Liris* of South Pacific islands).

155. *ligulatus* (F. Williams)

Notogonidea ligulata F. Williams, 1928a:75, ♂. Holotype: ♂, Philippines: Mindanao: Kolambugan (Bishop Mus.). – **As *Motes ligulata***: Baltazar, 1966:331 (new generic assignment, in catalog of Hymenoptera of Philippines). – **As *Liris ligulata***: R. Bohart and Menke, 1976:246 (new generic assignment; in checklist of world Sphecidae). – **As *Liris ligulatus***: Tsuneki, 1983a:31 (Philippines; taxonomic comments), 48 (in key to *Liris* of Philippines).

156. *limpidipennis* (F. Smith)

Larrada limpidipennis F. Smith, 1873b:57, ♀. Holotype or syntypes: ♀, Brazil: Pará: no specific locality (BMNH). – **As *Larra limpidipennis***: Kohl, 1885a:245 (new generic assignment, in checklist of world *Larra*); Dalla Torre, 1897:669 (in catalog of world Hymenoptera). – **As *Liris limpidipennis***: R. Bohart and Menke, 1976:246 (new generic assignment, in checklist of world Sphecidae); Amarante, 2002:40 (in catalog of Neotropical Crabronidae).

157. *liparus* Krombein and Shanks Gingras

Liris liparus Krombein and Shanks Gingras, 1984:60, ♀, ♂. Holotype: ♂, Mexico: Morelos: Canyon de Lobos: Yautepec (USNM). – Amarante, 2002:40 (in catalog of Neotropical Crabronidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:664 (in checklist of Mexican Sphecidae); Horta Vega, Pinson Domínguez, Barrientos Lozano, and Correa Sandoval, 2007:45 (Mexico: Tamaulipas); Horta-Vega, Vanoye-Eligio, García-Gutiérrez, Coronado-Blanco, and Barrientos-Lozano, 2013:382 (Mexico: Tamaulipas: Ciudad Victoria: Cañón del Novillo).

158. *liriformis* (F. Williams)

Notogonidea liriformis F. Williams, 1947:332, ♀. Holotype: ♀, Fiji: Viti Levu: Nandarivatu (Bishop Mus.). – F. Williams, 1947:318 (listed from Fiji); Fullaway, 1957:279 (in checklist of Hymenoptera of Fiji). – **As *Liris liriformis***: R. Bohart and Menke, 1976:24 (new generic assignment, in checklist of world Sphecidae).

159. *litoralis* Tsuneki

Liris litoralis Tsuneki, 1963c:10, ♀. Holotype: ♀, Thailand: Chantaburi (Sasayama). – R. Bohart and Menke, 1976:246 (in checklist of world Sphecidae).

160. *longicornis* (Cameron)

Larra longicornis Cameron, 1900a:27, ♀. Holotype or syntypes: ♀, India: West Bengal: Barrackpore 20 km north of Calcutta (OXUM). – Rothney, 1903:103 (India: West Bengal: Barrackpore); Ramakrishna Aiyar, 1916:552 (in catalog of Indian aculeates described after Bingham, 1897). – **As *Liris longicornis***: R. Bohart and Menke, 1976:246 (new generic assignment, in checklist of world Sphecidae).

161. *longitarsis* (Cameron)

Leptolarra longitarsis Cameron, 1900a:31, ♀. Holotype or syntypes: ♀, India: West Bengal: Barrackpore 20 km north of Calcutta (OXUM). – Rothney, 1903:104 (India: West Bengal: Barrackpore); Ramakrishna Aiyar, 1916:553 (in catalog of Indian aculeates described after Bingham, 1897). – **As *Liris longitarsis***: R. Bohart and Menke, 1976:246 (new generic assignment, in checklist of world Sphecidae).

162. *luctuosus* (F. Smith)

Larrada luctuosa F. Smith, 1856:289, ♀. Syntypes: Santo Domingo, Brazil: no specific localities (BMNH). – Cresson, 1862:237 (in catalog of North American Hymenoptera); Taschenberg, 1870:5 (additional description). – **As *Larra luctuosa***: Patton, 1880b:388 (new generic assignment, in checklist of North American Larrinae); Kohl, 1885a:245 (in checklist of world *Larra*); Dalla Torre, 1897:669 (in catalog of world Hymenoptera). – **As *Liris luctuosa***: R. Bohart and Menke, 1976:246 (new generic assignment, in checklist of world Sphecidae); Krombein, 1976:335 (Dominica; as *luctuosa luctuosa*), 1979:1919 (listed; as *luctuosa luctuosa*). – **As *Liris luctuosus***: Krombein and Shanks Gingras, 1984:33 (in revision of North American *Liris*); Amarante, 2002:40 (in catalog of Neotropical Crabronidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:664 (in checklist of Mexican Sphecidae); Perez-Gelabert, 2008:241 (in list of arthropods of island of Hispaniola).

163. *luteipennis* (Cresson)

Larrada luteipennis Cresson, 1869:293, ♂. Lectotype: ♂, Cuba: no specific locality (ANSP), designated by Cresson, 1916:95. – Wolcott, 1951:842 (in review of insects of Puerto Rico). – **As *Larra luteipennis***: Patton, 1880b:388 (new generic assignment, in checklist of North American Larrinae); Kohl, 1885a:245 (in checklist of world *Larra*); Dalla Torre, 1897:669 (in catalog of world Hymenoptera); Ashmead, 1899d:249 (in checklist of North American Crabronidae, as *interpennis*), 1900:225 (Lesser Antilles: Saint Vincent and Grenada islands), 306 (in checklist of Caribbean Hymenoptera). – **As *Liris luteipennis***: Alayo Dalmau, 1973:178 (new generic assignment, in catalog of Cuban Hymenoptera), 1976:23 (in checklist of Cuban Sphecidae); R. Bohart and Menke, 1976:246 (in checklist of world Sphecidae); Amarante, 2002:40 (in catalog of Neotropical Crabronidae); Genaro, 2006:56 (in checklist of Cuban Sphecidae and Crabronidae; also: Puerto Rico, Saint Vincent, Grenada); Molina Casas and E. Reyes, 2011:224 (Cuba: locality records).

164. *lutusator* (F. Williams)

Notogonidea lutusator F. Williams, 1928a:166, ♀, ♂. Holotype: ♀, Ecuador, Oriente Province: Tena (Bishop Mus.). – F. Williams, 1928a:99 (collects mud on forest trails). – **As *Liris lutusator***: R. Bohart and Menke, 1976:246 (new generic assignment, in checklist of world Sphecidae); Hanson and Menke, 1995:639 (known from Costa Rica); Amarante, 2002:40 (in catalog of Neotropical Crabronidae).

165. *magnificus* Kohl

Liris magnificus Kohl, 1884a:356, ♀ (as *magnifica*, incorrect original termination). Holotype or syntypes: ♀, northern Australia: no specific locality (NHMW). – Kohl, 1892:228 (in key to world *Liris* s.s.); R. Turner, 1908:473 (as new synonym of *Liris haemorrhoidalis*); Dollfuss, 1989:10 (type material in NHMW); Pulawski, 2007b:293 (full species status, diagnostic characters). – **As *Larra magnifica***: Kohl, 1885a:245 (new generic assignment, in checklist of world *Larra*); Dalla Torre, 1897:669 (in catalog of world Hymenoptera). – **As *Liris haemorrhoidalis magnifica***: F. Williams, 1928a:49 (new status, nesting habits); R. Bohart and Menke, 1976:245 (as tentative subspecies of *Liris haemorrhoidalis*); Cardale, 1985:235 (in catalog of Australian Sphecidae); Steiner, 1986:101 (references to papers on nesting habits); Naumann, 1993:185 (Australia: Queensland: Heathlands area in Cape York), 1998:185 (Australia: northwest Queensland: Musselbrook area, approximately 18°40'S 138°23'E).

As *Liris haemorrhoidalis*: Melo, 2000:105 (use of one nest by more than one female, referring to *Liris haemorrhoidalis magnificus* of Williams, 1928a).

166. *maidli* (Arnold)

Notogonia minima Maidl, 1924:237, ♂, junior primary homonym of *Notogonia minima* Arnold, 1923. Holotype: ♂, Sudan: El Obeid (NHMW).

Notogonidea maidli Arnold, 1929:397. Substitute name for *Notogonia minima* Maidl. – **As *Liris maidli***: de Beaumont, 1961f:250 (new generic assignment, in revision of Mediterranean *Liris*); R. Bohart and Menke, 1976:246 (in checklist of world Sphecidae); T. Li, Cai, and Q. Li, 2009a:119 (in key to Palearctic *Liris*); Schmid-Egger, 2014:575 (United Arab Emirates, comparison with *Liris miscophoides*), 578 (color photograph of male); Gadallah, 2020b:38 (in list of aculeate wasps of Arabian Peninsula); Rezaei, Fallahzadeh, Dousti, and Saghaei, 2020b:12 (Iran: Fars: Larestan: Hormood Abbsi at 27°32'06"N 54°59'02"E) and Estahban: Mobarak Abad at 29°15'14"N 53°56'46"E); Gadallah, Abu el-Ghiet, and Edmardash, 2021:1705 (first record from Saudi Arabia: Jazan Province).

167. *makiling* Tsuneki

Notogonidea silvicola F. Williams, 1928:76, ♂ only, corrected to *Liris makiling* by Tsuneki, 1983a:29.

Liris makiling Tsuneki, 1983a:29, ♂. Holotype: ♂, Philippines: Mindanao: Mount Makiling, allotype of *Notogonidea silvicola* F. Williams, 1928 (USNM). – Tsuneki, 1983a:47 (in key to *Liris* of Philippines); Nuhn and Menke, 1994:26 (holotype in USNM).

168. *mandibularis* Menke

Liris intermedius F. Williams, 1928a:83, ♂, ♀ (as *intermedia*, incorrect original termination), junior secondary homonym of *Liris intermedius* (Cameron, 1903) and of *Liris intermedius* (Arnold, 1923). Holotype: ♂, Philippines: Luzon: Los Baños (Bishop Mus.). – Baltazar, 1966:334 (in catalog of Hymenoptera of Philippines); Tsuneki, 1982a:13 (in key to *Liris* of South Pacific islands).

Liris mandibularis Menke in R. Bohart and Menke, 1976:246. Substitute name for *Liris intermedius* F. Williams, 1928. – Tsuneki, 1983a:6 (Philippines; redescription).

169. *manusanus* Tsuneki

Liris manusanus Tsuneki, 1982a:15, ♀ (as *manusana*, incorrect original termination). Holotype: ♀, Papua New Guinea: Bismarck Archipelago: island of Manus: Lorengau (ZMUC). – Tsuneki, 1982a:11, 12 (in key to *Liris* of South Pacific islands).

170. *melanius* R. Turner

As *Liris ducalis*: R. Turner, 1910b:425 (Australia: Cairns), corrected to *Liris melania* by R. Turner, 1916b:248.

Liris melanius R. Turner, 1916b:248, ♀ (as *melania*, incorrect original termination). Holotype or syntypes: ♀, Australia: Queensland: Cairns area (BMNH). – F. Williams, 1928a:84 (comparison with *Liris mindanaensis* = *mandibularis*), 1936b:125 (Solomon Islands); R. Bohart and Menke, 1976:246 (in checklist of world Sphecidae); Tsuneki, 1982a:10, 12 (in key to *Liris* of South Pacific islands); Cardale, 1985:234 (in catalog of Australian Sphecidae).

171. *melanopterus* Tsuneki

Liris melanopterus Tsuneki, 1982a:29, ♀ (as *melanoptera*, incorrect original termination). Holotype: ♀, Papua New Guinea: New Ireland: Lemkamin (ZMUC). – Tsuneki, 1982a:18 (in key to *Liris* of South Pacific islands).

172. *memnonius* (F. Smith)

Larrada memnonia F. Smith, 1856:281, ♀ (as *Memnonia*, incorrect original capitalization). Syntypes: ♀, Egypt, Senegal: no specific locality (BMNH). – **As *Larra memnonia***: Kohl, 1885a:245 (new generic assignment, in checklist of world *Larra*); Dalla Torre, 1897:670 (in catalog of world Hymenoptera); Arnold, 1923b:226 (original description copied), 1930:6 (in checklist of Afrotropical Sphecidae). – **As *Notogonia memnonia***: Storey, 1916:110 (Egypt: Alfia, Cairo, Ghiza, Maadi, Shubra); Richards, 1928a:361 (new generic assignment, in revision of Mediterranean species). – **As *Notogonidea memnonia***: Abdu and Shaumar, 1985:229 (new generic assignment; Qatar: Al Khor); – **As *Leptolarra memnonia***: nec de Beaumont, 1940a:17 (new generic assignment, misdetermination of *Liris subfasciatus*). – **As *Liris memnonia***: de Beaumont, 1950d:14 (new generic assignment, Egypt: Siwa oasis; as *memmonia*), 1955a:170 (Morocco), 1956a:195 (Libya), 1958b:60 (Algeria);

- Tassili des Ajjer), 1961f:226 (in revision of Mediterranean *Liris*); Pulawski, 1964:82 (Egypt: Aswan); de Beaumont, 1970a:399 (Afghanistan); R. Bohart and Menke, 1976:246 (in checklist of world Sphecidae); Guichard, 1980:227 (Oman). – **As *Liris memnonius***: Roche, 2007a:65 (in checklist of Egyptian Crabronidae), 2007b:4 (in checklist of Egyptian Ampulicidae, Sphecidae, and Crabronidae, as *memnonius memnonius*); T. Li, Cai, and Q. Li, 2009a:118 (in key to Palearctic *Liris*); Dunford, Turbyville, and Leavengood, 2014:10 (listed as medically important in Afghanistan); Sadeghi, Fallahzadeh, Ostovan, Ljubomirov, and Hesami, 2019a:270 (first record from Iran: Fars: Khonj); Gadallah, 2020b:38 (in list of aculeate wasps of Arabian Peninsula).
- Larrada semiargentea* Taschenberg, 1870:3 ♀. Holotype or syntypes: ♀, "Amer. Merid.", in error (Halle). Synonymized with *Liris memnonia* by Menke in R. Bohart and Menke, 1976:246. – **As *Larra semiargentea***: Kohl, 1885a:247 (new generic assignment, in checklist of world *Larra*); Dalla Torre, 1897:674 (in catalog of world Hymenoptera).
- Tachytes funebris* Radoszkowski, 1876b:135, ♀. Syntypes: ♀, Egypt: no specific locality (Kraków? ZMHU?). Synonymized with *Liris memnonia* by de Beaumont, 1961f:226. – Kohl, 1885a:395 (ordinal description copied); Dalla Torre, 1897:667 (in catalog of world Hymenoptera); de Beaumont, 1936b:621 (specimens in coll. Radoszkowski, Kraków). – **As *Larrada funebris***: Magretti, 1884c:585 (new generic assignment; Eritrea, Ethiopia, Sudan); W. Schulz, 1911b:187 (Magretti's specimen is a *Larra*, redescription).
- Larrada obscura* Magretti, 1884c:585, ♂. Syntypes: ♂, Ethiopia: Metemma; Ethiopia, Eritrea, or Sudan: Doka and Kor Gergabb (MSNG). Synonymized with *Liris memnonia* by de Beaumont, 1961f:226. – **As *Larra obscura***: Gribodo, 1894c:133 (new generic assignment, Mozambique: no specific locality); Dalla Torre, 1897:671 (in catalog of world Hymenoptera); Schulz, 1911b:188 (redescription); Arnold, 1923b:226 (unrecognizable species). – **As *Notogonidea obscura***: Guiglia, 1947b:120 (new generic assignment, redescription).
- Motes setigera* Arnold, 1940:123, ♂ (nec ♀, which = ...). Syntypes: Zimbabwe: no specific locality (SAM). Synonymized with *Liris memnonia* by de Beaumont, 1961f:226. – **As *Liris setigera***: Arnold, 1951:160 (new generic assignment, Mali: Tillembeya).
- As Notogonidea sepulchralis*: Arnold, 1923b:244 (in revision of southern African Sphecidae) and 1935a:498 (South Africa: Kalahari), corrected to *Liris radialis* by Arnold, 1929:394 and to *Liris memnonia* by de Beaumont, 1961f:226.
- As Leptolarra* aff. *memnonia*: de Beaumont, 1940a:17, corrected to *Liris memnonia* by de Beaumont, 1961f:225 and 226.

ssp. *coloripes* Arnold

- Motes radialis coloripes* Arnold, 1940:123, sex not stated. Syntypes: Madagascar: no specific locality (SAM). – **As *Motes setigera coloripes***: Leclercq, 1961d:115 (new subspecific generic assignment, Madagascar). – **As *Liris setigera coloripes***: Arnold, 1945:129 (new subspecific generic assignment, Madagascar: Behara, in revision of Madagascar Sphecidae); Leclercq, 1961d:115 (Madagascar). – **As *Liris memnonia coloripes***: R. Bohart and Menke, 1976:246 (new subspecific generic assignment, in checklist of world Sphecidae); Madl, 2014a:970 (in catalog of Ampulicidae, Crabronidae, and Sphecidae of Madagascar, with synonymy and locality records). – **As *Liris memnonius coloripes***: Pulawski, 2003b:797 (in checklist of Malagasy Sphecidae).

173. *menkei* Tsuneki

- Liris intermedius* Tsuneki, 1972c:2, ♂ (as *intermedia*, incorrect original termination), junior primary homonym of *Liris intermedius* F. Williams, 1928, and junior secondary homonym of *Liris intermedius* (Cameron, 1903) and of *Liris intermedius* (Arnold, 1923). Holotype: ♂, Taiwan: Hualien Prefecture: Tientian (originally K. Tsuneki coll., now?).
- Liris menkei* Tsuneki, 1976e:434. Substitute name for *Liris intermedius* Tsuneki, 1972. – T. Li, Cai, and Q. Li, 2007:423 (in key to *Liris* of China).

174. *mescalero* (Pate)

- Motes mescalero* Pate, 1943i:200, ♂. Holotype: ♂, New Mexico: Otero County: Alamogordo (ANSP). – G. Bohart in Muesebeck, Krombein, and Townes, 1951:954 (in catalog of North American Hymenoptera); Krombein, 1954b:16 (in key to North American *Motes*), 1958f:188 (Texas, Mexico); H. Allen, 1995:15 (type in ANSP). – **As *Liris mescalero***: R. Bohart and Menke, 1976:246 (new generic assignment, in checklist of world Sphecidae); Krombein, 1979b:1619 (in catalog of North

American Hymenoptera); Krombein and Shanks Gingras, 1984:19 (in revision of North American *Liris*; as *mescalero mescalero*); Rust, Menke, and Miller, 1985:46 (California: Channel Islands); S. Frommer, 1988:94 (California: Riverside County: Deep Canyon); Amarante, 2002:40 (in catalog of Neotropical Crabronidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:664 (in checklist of Mexican Sphecidae); Horta Vega, Pinson Domínguez, Barrientos Lozano, and Correa Sandoval, 2007: 45 (Mexico: Tamaulipas, as *mescalero mescalero*).

ssp. *latus* Krombein and Shanks Gingras

Liris mescalero latus Krombein and Shanks Gingras, 1984:21, ♂, ♀. Holotype: ♂, California: Orange County: Corona del Mar (USNM). – Parks, 1986:34 (California: Torrey Pine State Reserve); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:664 (in checklist of Mexican Sphecidae).

175. *mexicanus* Krombein and Shanks Gingras

Liris mexicanus Krombein and Shanks Gingras, 1984:51, ♂, ♀. Holotype: ♂, Mexico: Nayarit: San Blas (CAS). – Amarante, 2002:40 (in catalog of Neotropical Crabronidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:664 (in checklist of Mexican Sphecidae); Horta Vega, Pinson Domínguez, Barrientos Lozano, and Correa Sandoval, 2007: 45 (Mexico: Tamaulipas); Horta-Vega, Vanoye-Eligio, García-Gutiérrez, Coronado-Blanco, and Barrientos-Lozano, 2013:383 (Mexico: Tamaulipas: Ciudad Victoria: Cañón del Novillo); Vanoye-Eligio, Meléndez-Ramírez, Ayala, Navarro-Alberto, and Delfin-González, 2015:994 (Mexico: in list of Sphecidae *sensu lato* of Yucatán); Vanoye-Eligio, Meléndez-Ramírez, Ayala-Barajas, Delfin-González, and Horta-Vega, 2019:7 (Mexico: Yucatán).

176. *mindanaoensis* F. Williams

Liris mindanaoensis F. Williams, 1928a:83, ♀, ♂. Holotype: ♀, Philippines: Mindanao: Zamboanga (Bishop Mus.). – F. Williams, 1936b:126 (Solomon Islands); Baltazar, 1966:334 (in catalog of Hymenoptera of Philippines); Tsuneki, 1976b:72 (insertion into key to *Liris* of Williams, 1928a), 1982a:10, 12 (in key to *Liris* of South Pacific islands), 1983a:110 (study of holotype and allotype), 1983c:8 (New Guinea).

177. *minimus* (Arnold)

Notogonidea minima Arnold, 1923b:249, ♀, ♂. Holotype: sex not stated, Zimbabwe: Bulawayo or Hopefontain (SAM). – Arnold, 1929c:397 (description of ♂), 1930:6 (in checklist of Afrotropical Sphecidae), 1945:132 (in revision of Madagascar Sphecidae). – **As *Liris minima***: R. Bohart and Menke, 1976:246 (new generic assignment, in checklist of world Sphecidae); Madl, 2014a:970 (in catalog of Ampulicidae, Crabronidae, and Sphecidae of Madagascar, with synonymy and locality records, as *minima minima*). – **As *Liris minimus***: Pulawski, 2003b:797 (in checklist of Malagasy Sphecidae).

ssp. *lacustris* Arnold

Liris minima lacustris Arnold, 1947:156, sex not stated. Holotype or syntypes: Zambia: Lake Mweru District: Mukupa (SAM). – R. Bohart and Menke, 1976:246.

178. *miscophoides* (Arnold)

Notogonidea miscophoides Arnold, 1923b:248, ♀. Holotype: ♀, Zimbabwe: Bulawayo (SAM). – Arnold, 1929c:397 (description of ♂), 1930:6 (in checklist of Afrotropical Sphecidae). – **As *Liris miscophoides***: de Beaumont, 1961f:243 (new generic assignment, in revision of Mediterranean *Liris*); R. Bohart and Menke, 1976:246 (in checklist of world Sphecidae); Dollfuss, 1993a:693 (Central African Republic: Kembe; as *miscophoides*); T. Li, Cai, and Q. Li, 2009a:117, 119 (in key to Palearctic *Liris*).

ssp. *aegyptiacus* de Beaumont

As Leptolarra ? miscophoides: de Beaumont, 1940a:18 (Egypt).

Liris miscophoides aegyptiacus de Beaumont, 1961f:244, ♂, ♀ (as *aegyptiaca*, incorrect original termination). Holotype: ♀, Egypt: Ghiza (originally W.J. Pulawski coll., now CAS). – de Beaumont, Bytinski-Salz and Pulawski, 1973:5 (Israel); R. Bohart and Menke, 1976:246 (in checklist of world Sphecidae); Guichard, 1980:226 (Oman); Roche, 2007a:68 (in check-

list of Egyptian Crabronidae), 2007b:4 (in checklist of Egyptian Ampulicidae, Sphecidae, and Crabronidae); Gadallah, 2020b:38 (in list of aculeate wasps of Arabian Peninsula).

179. *modestus* (F. Smith)

Larrada modesta F. Smith, 1859a:159, ♀, ♂. Syntypes: ♀, Indonesia: Maluku: island of Aru (OXUM). – F. Smith, 1860b:123 (listed), 1863a:34 (Indonesia), 1863b:135 (known from Waigeo, Key, and Aru), 1865a:84 (Indonesia: Western Papua = New Guinea: island of Salawati), 1871a:365 (in catalog of Oriental Aculeata); Maindron, 1879:179 (nesting habits, use of spiders as prey recorded, most likely in error; the species observed is likely to be a *Pison*). – Tsuneki, 1983c:28 (in list of *Liris* recorded from New Guinea), 29 (main diagnostic characters). – **As *Larra modesta***: Kohl, 1885a:245 (new generic assignment, in checklist of world *Larra*); Dalla Torre, 1897:670 (in catalog of world Hymenoptera); Rudow, 1912:46 (description of nest, prey: spiders, clearly in error). – **As *Notogonia modesta***: Cameron, 1890c:314 (new generic assignment), 1906d:223 (New Guinea: Western Papua: Merauke). – **As *Liris modesta***: R. Bohart and Menke, 1976:246 (new generic assignment, in checklist of world Sphecidae).

Larrada vindex F. Smith, 1860b:123, ♀. Holotype or syntypes: ♀, Indonesia: Moluccas: Batjan: no specific locality (OXUM). Synonymized with *Liris modestus* by van der Vecht in R. Bohart and Menke, 1976:246. – F. Smith, 1863b:135 (known from Batjan), 1871a:365 (in catalog of Oriental Aculeata). – **As *Notogonia vindex***: Cameron, 1906b:57 (new generic assignment, New Guinea: Western Papua: Kwatisoré); Tsuneki, 1983c:29 (in list of species recorded from New Guinea; main diagnostic characters; probably good species). – **As *Larra vindex***: Kohl, 1885a:248 (new generic assignment, in checklist of world *Larra*); Dalla Torre, 1897:674 (in catalog of world Hymenoptera).

180. *molestus* Krombein and Shanks Gingras

Liris molestus Krombein and Shanks Gingras, 1984::64, ♀. Holotype: ♀, Mexico: Morelos: Cuernavaca (USNM). – Amarante, 2002:40 (in catalog of Neotropical Crabronidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:664 (in checklist of Mexican Sphecidae).

181. *montivagus* (Cameron)

Notogonia montivaga Cameron, 1908a:286, ♂. Holotype or syntypes: ♂, Tanzania: Mount Kilimanjaro: Kibonoto (NRS). – **As *Notogonidea montivaga***: Arnold, 1927:117 (new generic assignment, original description copied), 1930:6 (in checklist of Afrotropical Sphecidae). – **As *Liris montivaga***: R. Bohart and Menke, 1976:246 (new generic assignment, in checklist of world Sphecidae).

182. *mordax* Kohl

Liris mordax Kohl, 1892:223, ♀. Holotype or syntypes: ♀, Borneo: no specific locality (NHMW). – R. Bohart and Menke, 1976:246 (in checklist of world Sphecidae); Dollfuss, 1989:10 (type material in NHMW). – **As *Larra mordax***: Kohl in Dalla Torre, 1897:670 (new generic assignment, in catalog of world Hymenoptera).

183. *morio* Kohl

Liris morio Kohl, 1892:225, ♂. Holotype or syntypes: ♂, ? Sikkim: no specific locality (NHMW). – Kohl, 1892:229 (in key to world *Liris* s.s.); W. Schulz, 1906:205 (omitted by Bingham, 1897); R. Bohart and Menke, 1976:246 (in checklist of world Sphecidae); Dollfuss, 1989:10 (type material in NHMW). – **As *Larra morio***: Kohl in Dalla Torre, 1897:670 (new generic assignment, in catalog of world Hymenoptera).

184. *morobensis* Tsuneki

Liris morobensis Tsuneki, 1983c:23, ♂ (subgenus *Leptolarra*). Holotype: ♂, New Guinea: Huon Golf: Satterberg (TMB). – Tsuneki, 1983c:30 (in key to *Liris* of Papua New Guinea).

185. *morrae* (Strand)

Notogonia morrae Strand, 1910a:161, ♀. Holotype: ♀, Paraguay: Asunción: Villa Morra (ZMHU). – Strand, 1927:254 (in list of species described by the author); Bischoff and von Schulthess, 1937:168 (Argentina: Lapango). – **As *Liris morrae***: R. Bohart

and Menke, 1976:246 (new generic assignment, in checklist of world Sphecidae); Amarante, 2002:40 (in catalog of Neotropical Crabronidae).

186. *muspa* (Pate)

Motes muspa Pate, 1943i:201, ♂. Holotype: ♂, Florida: Sarasota County: Miakha River State Park (ANSP). – G. Bohart in Muesebeck, Krombein, and Townes, 1951:954 (in catalog of North American Hymenoptera); H. Allen, 1995:14 and 15 (type in ANSP). – **As *Motes vinulenta muspa***: Krombein, 1954b:14 (new status, morphological characteristics), 17 (in key to North American *Motes*); Krombein and Evans, 1954:233 (Florida: Arcadia), 1955:232 (Florida); Krombein, 1958f:188 (?Texas). – **As *Liris fuliginosa muspa***: Krombein, 1976:334 (new generic and subspecific generic assignment, occurs in southern Florida), 1979:1919 (in catalog of North American Hymenoptera). – **As *Liris vinulenta muspa***: R. Bohart and Menke, 1976:248 (in checklist of world Sphecidae). – **As *Liris muspa***: Alayo Dalmau, 1973:179 (new generic assignment, in catalog of Cuban Hymenoptera), 1976:23 (in checklist of Cuban Sphecidae); Krombein and Shanks Gingras, 1984:36 (in revision of North American *Liris*); Hook, 1998:250 (Texas: Val Verde County: Dolan Falls Preserve); Amarante, 2002:40 (in catalog of Neotropical Crabronidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:664 (in checklist of Mexican Sphecidae); Genaro, 2006:56 (in checklist of Cuban Sphecidae and Crabronidae; also: Florida, Texas); Horta Vega, Pinson Domínguez, Barrientos Lozano, and Correa Sandoval, 2007: 45 (Mexico: Tamaulipas); Molina Casas and E. Reyes, 2011:224, 225 (Cuba: locality records); Horta-Vega, Vanoye-Eligio, García-Gutiérrez, Coronado-Blanco, and Barrientos-Lozano, 2013:383 (Mexico: Tamaulipas: Ciudad Victoria: Cañón del Novillo).

187. *mussauanus* Tsuneki

Liris mussauanus Tsuneki, 1982a:24, ♂ (as *mussauana*, incorrect original termination). Holotype: ♂, Papua New Guinea: Bismarck Archipelago: island of Mussau: Talumalaus (ZMUC). – Tsuneki, 1982a:18 (in key to *Liris* of South Pacific islands).

188. *naguilianus* Tsuneki

Liris naguilianus Tsuneki, 1983a:40, ♂. Holotype: ♂, Philippines: Luzon: Naguilian: near Baguio (originally K. Tsuneki coll., now ?). – Tsuneki, 1983a:48 (in key to *Liris* of Philippines); Nuhn and Menke, 1994:27 (holotype not transferred to USNM, possibly returned to C. Nozaka, the collector); Menke, 1995:14 (type still in K. Tsuneki collection); Tano, 1995:45 (holotype in K. Tsuneki collection), 2020:26 (holotype in USNM, as *nauliannus*).

189. *nearcticus* Krombein and Shanks Gingras

Liris nearcticus Krombein and Shanks Gingras, 1984:57, ♀, ♂. Holotype: ♀, Mexico: Guerrero: Acapulco (USNM). – Amarante, 2002:40 (in catalog of Neotropical Crabronidae, as *nearcticus*); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:664 (in checklist of Mexican Sphecidae); Horta Vega, Pinson Domínguez, Barrientos Lozano, and Correa Sandoval, 2007: 45 (Mexico: Tamaulipas); Horta-Vega, Vanoye-Eligio, García-Gutiérrez, Coronado-Blanco, and Barrientos-Lozano, 2013:383 (Mexico: Tamaulipas: Ciudad Victoria: Cañón del Novillo).

190. *neavei* (R. Turner)

Notogonia neavei R. Turner, 1917f:294, ♀. Holotype or syntypes: ♀, Malawi: Mlanje (BMNH). – **As *Notogonidea neavei***: Arnold, 1923b:242 (new generic assignment, original description copied), 1930:6 (in checklist of Afrotropical Sphecidae). – **As *Liris neavei***: R. Bohart and Menke, 1976:246 (new generic assignment, in checklist of world Sphecidae).

191. *negrosensis* (F. Williams)

Notogonidea negrosensis F. Williams, 1928:74, ♂. Holotype: ♂, Philippines: island of Negros: Cuernos Mountains (Bishop Mus.). – **As *Motes negrosensis***: Baltazar, 1966:332 (new generic assignment, in catalog of Hymenoptera of Philippines). – **As *Liris negrosensis***: Tsuneki, 1974b:613 (new generic assignment, Thailand; description of ♀; type species of subgenus *Colloliris*); R. Bohart and Menke, 1976:246 (in checklist of world Sphecidae); Tsuneki, 1983a:16 (Philippines; taxonomic comments), 45 (in key to *Liris* of Philippines); Haneda, 2011:45 (Philippines: Palawan: Baheli and Iwahig).

192. *nielsenii* Tsuneki

Liris nielsenii Tsuneki, 1976b:65, ♀. Holotype: ♀, Philippines: Mindanao: Sapamoro (ZMUC). – Tsuneki, 1976b:73 (insertion into key to *Liris* of Williams, 1928a), 1983a:46 (in key to *Liris* of Philippines).

193. *niger* (Fabricius)

Sphex niger Fabricius, 1775:350, sex not stated (as *nigra*, incorrect original termination). Holotype or syntypes: Europe: no specific locality (lost, see van der Vecht, 1961a:19). Neotype: ♀, France: Vaucluse: Carpentras (ZMUC, Fabricius coll.), designated by van der Vecht and Menke, 1968:122, designation confirmed by International Commission on Zoological Nomenclature, 1973:25 (Opinion 997). – Fabricius, 1781:448 (redescription). – **As *Larra nigra***: Latreille, [1805]:295 (new generic assignment, redescription, authorship attributed to Linnaeus); Spinola, 1806:73 (Italy: Liguria); Goureau, 1839:540 (closing nest each time after bringing prey); Kohl, 1885a:245 (in checklist of world *Larra*). – **As *Tachytes nigra***: Vander Linden, 1829:25 (new generic assignment, bibliographic references, Italy: Bologna, Spain, redescription); Brullé, 1839:91 (Canary Islands); Lepeletier de Saint Fargeau, 1845:242 (in revision of world Hymenoptera); Lucas, 1849:248 (Algeria: Oran according to Lepeletier de Saint Fargeau, 1845); Fabre, 1856a:139 (France: Vaucluse: Avignon area); Marquet, 1881:179 (southern France); Fabre, 1886:230 (preying on crickets, overwintering as imago); De Stefani Perez, 1895:226 (in catalog of Sicilian Hymenoptera, as *niger*); Acloque, 1897:93 (in Sphecidae Fauna of France and Algeria). – **As *Larrada nigra***: F. Smith, 1856:275 (new generic assignment, in catalog of Hymenoptera in British Museum); Dours, 1874:140 (in catalog of Hymenoptera of France); Girard, 1879:954 (example of *Larrada*). – **As *Notogonia nigra***: A. Costa, 1867b:82 and 1867c:26 (new generic assignment, in revision of Italian Sphecidae), 1883:57 (Italy: Sardegna: Simaxis); Kohl, 1883e:671 (Switzerland); Magretti, 1884b:106 (Italy: Firenze area), 1884c:588 (Eritrea or Sudan: Khor Gergabb, Bahr el Salaam); De Stefani Perez, 1894:216 (Italy: Sicilia), 1895:226 (in catalog of Sicilian Hymenoptera); Coulon, 1925:121 (France: in Museum Elbeuf); Casolari and Casolari Moreno, 1980:112 (specimen in M. Spinola collection, Torino); Pagliano, 2008:541 (specimen in M. Spinola collection, Torino). – **As *Notogonidea nigra***: Balthasar, 1948:142 (new combination, Slovakia: Parkan); Balthasar, Hrubant, and Hrubant, 1967:172 (Bulgaria: Slanchev Bryag near Nessebar). – **As *Leptolarra nigra***: Zavdil in Zavdil and Šnoflak, 1948:155 (new generic assignment, in key to Sphecidae of Czechoslovakia). – **As *Liris nigra***: Nouvel and Ribaut, 1953:179 (new generic assignment, France: Haute-Garonne: Saint-Béat); Ceballos, 1956:374 (in catalog of Hymenoptera of Spain); Hertzog, 1956:182 (carrying prey dorsum up, keeping it with mandibles by antennae); Bajári, 1957a:49 (in key to Hungarian Sphecidae); Steiner, 1957a:1259 (nesting activities), 1957b:1818 (nesting activities), 1957c: 970 (reaction to various body parts of prey), 2105 (prey capture and paralyzing); Nouvel and Ribaut, 1958:12 (France: Pyrénées-Orientales: Banyuls-sur-Mer area); Pulawski, 1958a:178 (Bulgaria: Aitos, Akhtopol, Sozopol, Sandanski); Steiner, 1958:3526 (prey paralyzing), 1958b (effects of paralyzing on prey); Grandi, 1959b:287 (Italy: Bologna: Monte Cavallo); Noskiewicz and Puławski, 1960:126 (in key to Polish Sphecidae); Steiner, 1962:1 (detailed analysis of stinging sites on gryllid prey); Evans, 1963a:149 (reference to Steiner's observations); Steiner, 1963a:3480 (effects of stinging individual neural ganglia of prey), 1963b:3676 (possible influence of larval life on predatory behavior of adults); Ceballos, 1964:90 (in supplement to catalog of Spanish Sphecidae); Diniz, 1964a:7 (Portugal: fifteen localities); Evans, 1964b:289 (*Liris nigra* and not *Motes pompiliformis* is the correct name for the species); Myartseva, 1965:79 (Turkmenistan: Akibay); Steiner, 1965:12 (description of artificial nest for rearing specimens in laboratory); Gauss, 1967:553 (Germany: Baden-Württemberg: Kaiserstuhl); Scobiola-Palade, 1968b:142 (Romania: Island of Letea in delta of Danube), 1968c:384 (Romania: Alexandria, Brănești, București, Budești, Cernica, Domneacă, Moara, Nanov, Pasărea); Steiner, 1968:256 (behavioral interactions between *Liris nigra* and its prey *Gryllus domesticus*); Gauss and Perraudin, 1970:360 (Germany: Baden-Württemberg: Kiechlingsbergen in Kaiserstuhl); Oehlke, 1970:711 (records from Democratic Germany questionable); Steiner 1971:1401 (female behavior in unusual situations); Balthasar, 1972:300 (in Sphecidae Fauna of Czechoslovakia); Scobiola-Palade, 1972a:151 (Romania: delta of Danube: Caraorman); Kazenas, 1974b:110 (feeding on flowers of *Euphorbia* spp., Euphorbiaceae, in Kazakhstan); R. Bohart and Menke, 1976:246 (in checklist of world Sphecidae); Steiner, 1976:343 (stinging behavior compared with that of *Liris aequalis*, now *beatus*, and *Liris argentatus*); Kazenas, 1978b:103, 104 (in key to Sphecidae of Kazakhstan and Central Asia); Pulawski, 1978:214 (in key to Sphecidae of European part of USSR); Pagliano, 1980:126 (Italy: Piemonte); Schmidt, 1981:181

(Germany: Baden-Württemberg); Gayubo, 1982a:97 (northern Spain: Sierra de Béjar), 1982f:250 (Spain: Cádiz Province), 1983a:122 (prey: nymph of *Gryllus campestris* Linnaeus), 1984b:83 (Spain: Salamanca Province), 1984c:361 (Portugal: El Algarve Province); Gayubo and Tormos, 1984:14 (Spain: Valencia); Steiner, 1984a:152 (gryllid prey never resumes normal activities after being stung, in contrast to *Larra*; maxillary and labial palpi can rarely be moved after stinging); Gayubo, 1985a:486 (prey: *Gryllus campestris* (Linnaeus)); Józán, 1985b:57 (Hungary south of Lake Balaton), 83 (ecological and zoogeographic characteristics); Radović, 1985:64 (sting apparatus analyzed); Scobiola-Palade, 1985:96 (Romania: delta of Danube); Gayubo, 1986c:32 (Spain: Zamora Province); Gayubo and Heras, 1986:38 (Spain: Segovia Province); Gayubo and Sanza, 1986:42 (Spain: Burgos); Gayubo and Tormos, 1986a:12 (Spain: Castellón de la Plana); Islamov, 1986:524 (Uzbekistan: Tashkent Oblast'); Józán, 1986:370 (Hungary: Kiskunság National Park); Piek and Spanjer, 1986:185 (in list of Sphecidae with known prey); Steiner, 1986:102 (references to papers on nesting habits); Gayubo, 1987a:111 (Spain: Ciudad Real Province); Scobiola-Palade, 1987:65 (Romania: Dobrogea); Tormos and Jiménez, 1987a:124 (Spain: Valencia); Asís and Jiménez, 1988:271 (Spain: Castellón Province); Gayubo and Mingo, 1988:74 (Spain); Pádr in Šedivý, 1989a:167 (in checklist of Czechoslovakian Sphecidae); Scobiola-Palade, 1989:87 (Romania: delta of Danube); Pagliano, 1990:102 (in catalog of Italian Sphecidae); Day, 1991:xvi (listed in European Endangered Hymenoptera Lists); Gayubo, Borsato, and Osella, 1991:401 (Italy: Veneto, Lazio); Gayubo and Torres, 1991:Table I (Spain: Salamanca; effects of urban pressure); Guichard, 1991a:339 (Jordan); Kazenas and Nasyrova, 1991:38 (Kazakhstan: preying on *Modicogryllus frontalis* (Fieb.); Schembri, 1991:179 (first record from Malta); Józán, 1992c:289 (Hungary: Zselic Hills); Negrísolo and Pagliano, 1993:94 (Italy: Sardegna); Ebmer, F. Gusenleitner, and J. Gusenleitner, 1994:402 (first record from Austria: Steiermark: Therme Loipersdorf); Minoranskiy and Shkuratov, 1996:81 (Russia: Rostov Oblast'); Wu and Zhou, 1996a:82 (in revision in Economic Insect Fauna of China); Celary, 1997:58 (in checklist of Animals of Poland); Nazarova and Shomirsaidov, 1997:23 (Tajikistan: fruit tree orchards in Vakhsh River valley); Dollfuss, Gusenleitner, and Bregant, 1998:514 (Austria: summary of collecting records from Burgenland); Józán, 1998:306, 311 (Hungary: Duna-Dráva National Park); Esenbekova and Kazenas, 2000:27 (southeastern Kazakhstan: eight localities); Józán, 2000:107 (Hungary: Bakony Mountains); Shkuratov, 2000:57 (Russia: Rostov Oblast': Vëshenskaya village area at 49°37'N 41°45'E); Vicidomini, 2000b:25 (Italy: previously recorded from Campania); Józán, 2001:279 (Hungary: Somogy County); Kazenas, 2001:26 (in checklist of Sphecidae of Kazakhstan and Central Asia), 149 (review of known biology); Kazenas and Esenbekova, 2001:134 (Kazakhstan: Almatinskiy Nature Reserve); Józán, 2002:53 (Hungary: Mecsek Mountains); Shkuratov, 2002b:140 (Russia: Rostov Oblast': Rostovskiy Nature Reserve at 46°27'N 42°41'E); Kazenas, 2004b:102 (Kazakhstan: western Tien Shan), 2004d:29 (Kazakhstan: northern Caspian region); Nazarova, 2004:106 (Tajikistan: Badakhshan Region: villages Langar and Dasht in Shakh dara River valley); Skibińska in Bogdanowicz, Chudzicka, Pilipiuk, and Skibińska, 2004:356 (in catalog of Polish Crabronidae); Nazarova, 2005:93 (alfalfa fields in southwestern Tajikistan); Józán, 2007:179 (Hungary: Zselic hills), 2009:166 (Croatia: Brsec, Nost-Raša), 2011:180 (in checklist of Sphecidae *sensu lato* of Hungary); Kazenas, 2013a:57, 58 (color photographs of adult wasps, short information on geographic distribution and nesting habits), 2014a:134 (Kazakhstan: Karatau Mountain Range); Samin, Bagriacik, and Monaem, 2015:196 (Iran: Mazandaran: Behshahr). – **As *Liris niger***: Westrich and Schmidt, 1985b:111 (Germany: endangered in Baden-Württemberg); Jacobs, 1989:11 (Germany: Mecklenburg-Vorpommern); Gayubo, Asís, and Tormos, 1990a:16 (Spain); Jacobs and Oehlke, 1990:122 and 162 (occurrence in Democratic Germany questionable); Dollfuss, 1991:98 (in key to Sphecidae of North and Central Europe); Gayubo and Torres, 1991:Table I (Spain: Salamanca; effects of urban pressure); Torregrosa, Gayubo, Tormos, and Asís, 1993:18 (Spain: Alicante Province); Gayubo and Borsato, 1994:207 (Italy: Lombardia, Emilia); Gusenleitner, 1995:161 (first record from Austria: Burgenland); Negrísolo in Minelli, Ruffo, and La Posta, 1995b:9 (in catalog of Italian fauna); Gusenleitner, 1996b:811 (Austria: Steiermark); Schmid-Egger, Schmidt, and Doczkal, 1996:377 (Germany: Baden-Württemberg: last collected in 1967); Schmidt and Schmid-Egger, 1997:17 (in checklist of German Sphecidae), Anton and Gnatzy, 1998:671 (prey specificity and close-range prey recognition); Gayubo, García, Torres, and González, 1999:89 (Spain: Soria Province); Gonzáles, Gayubo, and Torres, 1999:355 (Spain: Valladolid: Viana de Cega); Blösch, 2000:224 (in Sphecid Fauna of Germany); Gayubo, González, and Torres, 2000:185 (Spain: Salamanca Province); Gnatzy and Volkand, 2000:271 (venom gland: morphology, ultrastructure, age-related changes, biochemical aspects); Ljubomirov, 2000:10 (Bulgaria: specimens in N. Nedelkov collection); Ferber, Hörner, Cepok, and Gnatzy, 2001:208 (neurobiological

mechanisms causing total prey paralysis); Gnatzy, 2001:125 (female-prey interaction); Ljubomirov, 2001b:48 (Bulgaria: Mount Vitosha near Sofia); Ohl et al., 2001:139 (distribution in Germany by provinces); K. Schmidt and Bitsch in Bitsch et al., 2001:204 (in Sphecidae Fauna of Western Europe); Kazenas, 2002a:61 (geographic distribution, collecting localities in Kazakhstan); Gayubo, Özbek, and Yıldırım, 2003:87 (Turkey: Adana, Artvin, Burdur, Erzurum, İcel, Malatya, and Şanlıurfa Provinces); Generani, Pagliano, Scaramozzino, and Strumia, 2003:65 (Italy: Arcipelago Toscano); Protsenko, 2003:68, 69 (first record from Ukraine: Odessa Oblast': island of Malyi Tataru in Danube delta at 45.21°N 29.00°E); Schmid-Egger, 2003:754 (Italy: Sicilia: Castelammare, Madonie); Gnatzy, Volkandt, and Schulz, 2004:125 (Dufour gland: structure, development, biochemical aspects); Shkuratov, 2004a:76 (Russia: Rostov Oblast'; prey: gryllids *Gryllodinus odicus* Uvarov and *Gryllus desertus* Pallas), 2004b:166 (Russia: Rostov Oblast': Gosudarstvennyi Muzey-Zapovednik M.A. Sholokhova); Stolle et al., 2004:372 (Germany: Sachsen-Anhalt: last collected before 1866); Wiśniowski, 2004:44 and 59 (in checklist of Polish Sphecidae: mistakenly reported from Poland by Meyer, 1919); Zettel, 2004:4 (Austria: Niederösterreich: Mödling, Oberweiden, Prellenkirchen); Burger, 2005:36 (Germany: not occurring in Thüringen); Ebrahimi, 2005:125 (in key to selected Iranian Sphecidae); Pagliano and Negrisol, 2005:351 (in Sphecidae Fauna of Italy); Shorenko, 2005:163 (Ukraine: Crimea), 2005b:98 (Ukraine: Crimea: Karadagh Nature Reserve); Yildirim and Ljubomirov, 2005:1797 (Turkey: Erzurum: Dumlulu, Şenkaya); Gnatzy and Jatho, 2006:417 (eight types of antennal sensillae found in both sexes: sensilla trichodea type 1, sensilla trichodea type 2, sensilla trichodea type 3, sensilla basiconica, sensillae placodea, sensillae ampullacea, sensillae coeloconica, and sensillae coelocapitula); Hua, 2006:281 (in list of Chinese insects, geographic distribution); Magdalou, 2006a:7, 10 (France: Pyrénées-Orientales: Réserve Naturelle de la Massane), 2006b:109 (France: Pyrénées-Orientales: Mas-Larrieu Nature Reserve near Argelès-sur-Mer), 2006c:7 (France: Pyrénées-Orientales: Réserve Naturelle du Mas-Larrieu); Standfuss and Standfuss, 2006b:96 (Greece: Thessalia: Magnisia Peninsula at 39°N 23°E); Bitsch, Dollfuss, Bouček, Schmidt, Schmid-Egger, Gayubo, Antropov, and Barbier, 2007:462 (France: Var: Vidauban, prey: Orthoptera Gryllidae: *Eumodicogryllus bordigalensis* (Latreille), nest unicellular); Jacobs, 2007:93 (in key to Crabronidae of Germany); T. Li, Cai, and Q. Li, 2007:419, 421 (in key to *Liris* of China); Roche, 2007a:68 (in checklist of Egyptian Crabronidae), 2007b:4 (in checklist of Egyptian Ampulicidae, Sphecidae, and Crabronidae, as *niger niger*); Sipos and Móczár, 2007:204 (Hungary: Bács-Kiskun megye: vicinity of Foktő); Vepřek and Straka, 2007:202 (in catalog of Sphecidae of Czech Republic and Slovakia, known only from Slovakia); Gayubo, González, Tormos, and Asís, 2008:138 (Spain: Salamanca: Parque Natural de Las Batuecas – Sierra de Francia); Kazenas, 2008b:112 (Kazakhstan: foothills of Zailiskiy Alatau: occurring among others on loess cliffs); Ljubomirov and Yildirim, 2008:192 (in catalog of Crabronidae of Turkey); Baños-Picón, Asís, Gayubo, and Tormos, 2009:311 (Spain: frequency of specimens collected with hand nets and in Malaise traps); Gayubo, González, Tormos, and Asís, 2009:363 (Spain: Valladolid: Reserva Natural Riberas de Castronuño – Vega del Duero); González, Gayubo, Asís, and Tormos, 2009:623 (Spain: Salamanca and Zamora provinces: Arribes del Duero Natural Park); Libersat, Delago, and Gal, 2009:193, 197-200 (preying behavior described); Pagliano, 2009:183 (Italy: Abruzzo: Moscutto; Molise: Mafalda); T. 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Li, 2009a:117, 119 (in key to Palearctic *Liris*); Shorenko, 2009:367 (in list of Sphecidae *sensu lato* of Crimea); Ghazi-Soltani, Ebrahimi, Iranipour, and Pour Abad, 2010:799 (Iran: East Azarbaijan: Marand: Yam); Schmid-Egger, 2010a:16 (in red list of Aculeata of Germany: extinct, last collected in 1967); Shorenko and Kononov, 2010:21 (Ukraine: Crimea: village Shcherbakovo near Feodosiya); Tormos, Asís, Baños-Picón, and Gayubo, 2010:511 (description of mature larva, immature larva, and egg); van der Smissen, 2010b:385 (France: Ardèche, Gard, and Vaucluse: locality records); Cruz-Sánchez, Asís, Gayubo, Tormos, and González, 2011:498 (Spain: Salamanca and Zamora provinces: Arribes del Duero Natural Park: effects of wild-fire); Gogala, 2011:14 (Slovenia); Boillat, 2012:226 (Switzerland: in checklist of insects of Canton de Genève); Kazenas, 2012b:169 (Kazakhstan: Korgalzhin State Nature Reserve); Strumia, Pagliano, and Gayubo, 2012:56 (Italy: Toscana: Riserva di San Rossore); Kazenas, 2013b:494 (southeastern Kazakhstan: five localities); Vieira, Oliveira, Brewster, and Gayubo, 2013:17 (Portugal: Douro International Natural Park and Serras de Aire e Candeeiros Natural Park); Bitsch, 2014:403 (France: Ariège: Mazères, Rieucros); Dunford, Turbyville, and Leavengood, 2014:10 (listed as medically important in Afghanistan); Ebrahimi, 2014:38 (Iran: Alborz, Ardebil, Bushehr, Golestān, Māzandarān, and Tehrān provinces); Ghahari, Hayat, Lavigne, and Ostovan, 2014:1390 (prey of asilid fly *Dysmachus bimucronatus* (Loew)), 1391 (prey of asilid fly *Dysmachus stylifer* (Loew)); Lett, 2014:130 (France: Loir-et-Cher: Gièvres at 47°16'39"N 1°41'52"E); Yıldırım, Ljubomirov,

and Lelej, 2014:11 (distribution in Turkey by biogeographic provinces); Atbaei, Fallahzadeh, and Ljubomirov, 2015:13 (Iran: Fars Province, as *niger niger*, variation in morphological and chromatic characters); Koçak and Kemal, 2015:146 (in checklist of Hymenoptera of Turkey); Lett, 2015:5 (France: Loir-et-Cher: Gièvre); Mokrousov and Zryanin, 2015:42 (Uzbekistan: Dzhizak, Kashkadarya, and Surkhandarya Oblast's); Rezaei and Fallahzadeh, 2015:7 (Iran: Fars: Dalin at 30°03'N 52°07'E and Kaftarak at 29°34'N 52°41'E, as *niger niger*); P. Rosa and Pagliano, 2015:102 (Italy: Lombardia and Piemonte: Parco del Ticino); Shorenko, 2015:325 (in list of Sphecidae *sensu lato* of Crimea); Mokrousov and Popov, 2016:582 (Russia: Abkhazia, Krasnodarskiy Kray); Sadeghi, Fallahzadeh, Ostovan, Ljubomirov, and Hesami, 2016:431 (Iran: Fars Province, as *niger niger*); Schmid-Egger, Dandria, and Xuereb, 2016:80 (in checklist of Crabronidae of Maltese Islands); Stolle and Saure, 2016:923 (Germany: in list of Sphecidae *sensu lato* of Sachsen-Anhalt); Antropov, 2017b:237 (in catalog of Crabroninae of Russia); Jahantigh, Rakhshani, Mokhtari, and Ramroodi, 2017:66 (Iran: known from Alborz, Ardabil, Bushehr, East Azerbaijan, Fars, Golestan, Mazandaran, Sistan-o Baluchestan, and Tehran provinces); Magdalou, 2017:15 (France: Pyrénées-Orientales: Réserves Naturelles Catalanes: Forêt de la Massane, Mas Larrieu); Shorenko, 2017:77 (in Crimea collected in June through August and in October); Fallahzadeh, Ljubomirov, Tavakoli Roodi, and Saghaei, 2018:628 (Iran: Hormozgan: Band e Molla at 27°5'N 57°09'E and Poshte at 27°26'N 57°09'E); Lett, 2018:203 (France: Loir-et-Cher: Gièvres at 47°16'39"N 1°41'52"E); Shorenko, 2018:128 (Crimea, including localities, habitats, and number of specimens); Yildirim and Tezcan, 2018:1708 (Turkey: İzmir: Bornova); Mokrousov, Proshchalykin, Aliyev, and Maharramov, 2019:13 (Azerbaijan: Nakhichevan Autonomous Republic); Sadeghi, Fallahzadeh, Ostovan, Ljubomirov, and Hesami, 2019a:270 (Iran: Fars: four localities); Yalnız and Tüzün, 2019:16 (Turkey: Adana Province: no specific locality, as *niger niger*); Gadallah, 2020b:39 (in list of aculeate wasps of Arabian Peninsula); Gros, 2020:402 (prey); Shorenko, 2020:50 (Crimea: Karadag Nature Reserve); Ben Khedher, Yildirim, and Braham, 2021a:59 (Tunisia: Sidi Bouzid: two localities); Cross, Baldock, and Wood, 2021:47 (in catalog of Sphecidae *sensu lato* of Portugal); Kaplan and Yildirim, 2021:69 (in catalog of Crabronidae of Turkey); K. Schmidt, Straka, and Bitsch in Bitsch, Antropov, Gayubo, Leclercq, Schmid-Egger, K. Schmidt, and Straka, 2021:261 (in revision of Sphecidae *sensu lato* of Europe); Embergenov, Akhmedov, and Medetov, 2023:25 (Uzbekistan: southern Lake Aral region); Mawadda and Girish Kumar, 2023:113 (in checklist of Crabroninae of Northern India); Kaplan and Yildirim, 2023:1685 (in checklist of Sphecidae *sensu lato* of Turkey); Medetov, Embergenov, Kholmatov, Elmurodova, Rakhimov, and Tajibaeva, 2024:420 (Uzbekistan: distribution); Gülmez, Çubuk, and Can, 2025:169 (Turkey: Çanakkale: Kelkit River Valley, as *niger niger*).

Larra pompiliformis Panzer, [1807-1809], Heft 106:17, junior primary homonym of *Larra pompiliformis* Panzer, 1804 (now in *Tachysphex*). Synonymized with *Leptolarrra agilis* (F. Smith, 1856) by Richards, 1935a:164, and with *Liris niger* of Vander Linden (= *Sphex niger* Fabricius, 1775) by de Beaumont, 1947b:390. – de Gaulle, 1908:121 (in catalog of French Hymenoptera); Peets, 1909-1911:68 (*Larra pompiliformis* of Panzer = *Notogonia pompiliformis*); Coulon, 1925:121 (Morocco: Mogador, Tanger); Friese, 1926:162 (in key to Sphecidae of Central Europe, short morphological and biological characteristics); Myartseva, 1963b:58 (Turkmenistan: lower Murgab River). – **As *Tachytes pompiliformis***: Radoszkowski, 1876b:135 (new generic assignment, Egypt). – **As *Notogonia pompiliformis***: Kohl, 1885a:250 (new generic assignment, in revision of Palearctic Larrinae); Gasperini, 1887:15 (Dalmatia: Spalato, now Croatia: Split), 1889:69 (Dalmatia, now Croatia); Kohl and Handlirsch, 1889:278 (Turkmenistan: Tahta Bazar); F. Morawitz, 1891a:207 (Russia: Astrakhan Governorate); A. Costa, 1893b:5 (Tunisia); F. Morawitz, 1893b:409 (Uzbekistan: Samarkand); Schletterer, 1894:31 (Istria Peninsula, now part of Croatia, Slovenia, and Italy); Dalla Torre, 1897:672 (in catalog of world Hymenoptera); Mocsáry, 1897:77 (Kingdom of Hungary, including localities from today's Croatia and Romania); Bingham, 1898a:104 (Yemen: Aden); Ferton, 1901a:98 (nesting habits); Adlerz, 1904:137 (known prey: immature gryllids); Antiga and Bofill, 1904:10 (Spain: Cataluña Province); E. Saunders, 1904c:603 (Spain: Mayorca); W. Schulz, 1904b:102 (Italy: Canonica d'Adda; Spain: Granada); Ferton, 1905:67 (amputation of prey legs); Mantero, 1905:72 (Italy: Toscana: Isola del Giglio); W. Schulz, 1905b:44 (Algeria: Biskra); Zavattari, 1905b:5 (Middle East: no specific locality); Graeffe, 1906:455 (Tunisia: Tunis area); Móczár and Henter, 1907:205 (Hungary: Tiszaalpár); Schmiedeknecht, 1907:234 (in key to Hymenoptera of Central Europe); Ferton, 1910:152 (difference in prey size); Mercet, 1910b:165 (listed from Spain); Mantero, 1911:74 (Italy: Sardegna: Isola dell'Asinara); Zavattari, 1912:3 (Italy: Sardegna: Isola di San Pietro); O. Meyer, 1919:155 (Germany: Posen Province, now Poland: Poznań Region,

- record not confirmed by subsequent authors); Morice, 1911:97 (Algeria: Alger, Biskra, Bône); Ferton, 1912a:359 (Algeria, prey hunting); Smits van Burgst, 1913a:319 and 1913b:6 (Tunisia: no specific locality); Torka, 1913:35 (Germany: Provinz Posen, now Poland: Poznań Region, record not confirmed by subsequent authors); Storey, 1916:110 (Egypt: Ezbet el Nakhil, Faraskur, Maadi, Mariut, Ras el Khalig, Shubra); Berland, 1921:533 (Greece); Lauterborn, 1922:244 (Germany: Baden-Württemberg: Kaiserstuhl); Ferton, 1923:169 (nesting habits), 296 (easily finds nest when carrying prey); Maidl, 1924:239 (Sudan: El Obeid); Roth, 1924:123 (Algeria: Nemours, now Ghazaouet); Berland, 1925b:43 (nesting habits, tachinid parasites), 1925d:113 (in Sphecidae Fauna of France); Coulon, 1925:121 (Spain; Turkey: Istanbul); Berland, 1926a:43 (nesting, prey); von Schulthess, 1926b:213 (Tunisia); Kuznetsov-Ugamskij, 1927:249 (Uzbekistan: Min-Bulak 65 km north-east of Tashkent, Khumsan); Grandi, 1928d:289 (nest and prey), 292 (description of egg and larva); Richards, 1928a:359 (in revision of Mediterranean species), 1928b:218, 219 (in key to French *Notogonia*); Berland, 1929a:66 (use of abandoned nests of other aculeates); G. Carpenter, 1930b:299 (nest closure); Grandi, 1930:316 (using preexisting cavities for nest), 341 (Italy: Toscana: Maremma); Schmiedeknecht, 1930:695 (in keys to Hymenoptera of North and Central Europe); Dusmet y Alonso, 1931:7 (Portugal: Mitra, Monte das Flores); Giordani Soika, 1932a:22 (Italy: Lido di Venezia); Guiglia, 1932d:473 (Libya: Gialo); Bernard, 1933:62 (France: Drôme: Dieulefit); Gussakovskij, 1933b:277 (Iran); Nadig, 1933:85 (Morocco); E. Nielsen, 1933:295 (summary of nesting habits); Strohm, 1933:337 (Germany: Baden-Württemberg: Kaiserstuhl); Bernard, 1934b:249 (gryllid prey: *Acheta campestris* (Linnaeus) and *bimaculata* (DeGeer), *Gryllomorpha uclensis* Panzer); Grandi, 1934:129 (Italy: Lazio: Acilia); Guiglia, 1934b:302 (Libya: bibliography and summary of locality records); Gussakovskij, 1934a:9 (Mongolia); Nadig, 1934:32 (Italy: Sardegna: Cagliari); Bernard, 1935:64 (France: Var: Fréjus area); Grandi, 1935a:110 (Italy); Gussakovskij, 1935:426 (Tajikistan); Zavadil, 1937a:73 (eastern Slovakia); Zavadil, Šusterka, and Bat'a, 1937:203 (in catalog of Sphecidae of Czechoslovakia); Móczár, 1939:4 (Hungary: Jászberény); Giner Marí, 1943a:125 (in Sphecidae Fauna of Spain); Deleurance, 1946b:63 (France: Camargue: exploring *Cistus* plants), 67 (France: Bouche-du-Rhône: Camargue: Bois des Rièges); Scobiola, 1950:20 (first record from Romania: several localities); Cleu, 1953:50 (France: Ardèche River basin); Hertzog, 1954:101 (France: Bouches-du-Rhône: Camargue); Lehrer, 1955:263 (Romania: cited from Munternia and Dobrogea Provinces by Scobiola, 1950); Vogrin, 1955:37 (Yugoslavia); Giner Marí, 1959:388 (Morocco: Fès); Roberti, Frilli, and Pizzaghi, 1965:110 (Italy: Emilia-Romagna: Piacenza). – **As *Notogonia nigræ* pompiliformis**: Giner Marí, 1934:133 (new generic assignment, Spain). – **As *Motes pompiliformis***: Guiglia, 1943b:71 (new generic assignment, Albania: Kopliku), 1944b:25 (Italy); Ceballos, 1956:375 (in catalog of Hymenoptera of Spain). – **As *Leptolarra pompiliformis***: de Andrade, 1949:13 (new generic assignment, Portugal); Diniz, 1959:29 (Portugal: 11 localities).
- As *Tachytes nigra* Vander Linden, 1829:23 (who actually did not described this species, but transferred to *Tachytes* the *Larra nigra* of Latreille, 1805:295 = *Sphex niger* Fabricius, 1775:350, see above). – **As *Notogonia nigra***: Magretti, 1881:107 (new generic assignment, Italy: Lombardia), 270 (in list of species discussed in this paper); Baldini, 1894:62 (Italy: Modena area); R. Turner, 1917e:196 (India; synonymy); Guiglia, 1934b:302 (Libya: bibliography and summary of locality records). – **As *Liris nigra***: de Beaumont, 1947b:390 (new generic assignment, Cyprus), 1950f:404 (Algeria); Pittioni, 1950:24 (Cyprus); de Beaumont, 1954a:54 (Italy), 1954e:90 (Italy); Grandi, 1954:178 (nesting habits), 238 (Italy); de Beaumont, 1955a:170 (Morocco); Steiner, 1955:138 (France: Dordogne); Bytinski-Salz, 1956:226 (Turkey: Aydın, Kalkan, Tarabya); de Beaumont, 1956a:195 (Libya); Grandi, 1957:389 (Libya: Tripolitania: Wadi Kaam); Pulawski, 1958a:178 (Bulgaria); de Beaumont, 1959a:26 (Italy); Suárez in Giner Marí, 1959:400 (*Liris nigra* is the correct name for *Notogonia pompiliformis* in Giner Marí, 1959:388); Suárez, 1959:57 (Spain: Almería Province); Wolf, 1959b:24 (known from Germany, but not from Nassau); de Beaumont, 1960a:14 (Greece: island of Rhodes), 1960b:237 (Libya), 1961b:275 (Afghanistan), 1961c:49 (Greece: island of Crete), 1961e:4 (Iraq), 1961f:239 (in revision of Mediterranean *Liris*); Grandi, 1961:190 (nesting habits), 495 (description of larva); de Beaumont, 1962b:25 (Spain); Grandi, 1962:96 (Italy); de Beaumont, 1965a:56 (Greece), Scobiola-Palade, 1965:112 (Romania); de Beaumont, 1967a:330 (Turkey); Scobiola-Palade, 1967a:162 (Romania: Constanța District: Băneasa, Hagieni), 1967b:42 (Romania), 1968b:142 (Romania), 1968c:384 (Romania); de Beaumont, 1969:90 (Turkey), 1970a:400 (Afghanistan), 1970c:14 (Iran: Baluchistan); Kazenas, 1972b:165 (Kazakhstan); Myartseva, 1972b:80 (Turkmenistan); Scobiola-Palade, 1972a:151 (Romania), 1972b:253 (Romania); Tsuneki, 1972e:381 (Mongolia); de Beaumont, Bytinski-Salz and Pulawski, 1973:5 (Israel); Georgiou, 1977:190 (Cyprus).

- Anoplius uniocellatus* Dufour, 1833:483, sex not stated. Syntypes: France: Landes: Saint-Sever (lost?). Synonymized with *Liris niger* by van der Vecht, 1961a:20, synonymy confirmed by de Beaumont, 1961f:239, 240.
- As *Tachytes unicolor*: Radoszkowski, 1877:27 (Uzbekistan: Samarkand and Zaravshan valley), corrected to *Larra unicolor* by Radoszkowski, 1886:29, and to *Larra confusa* by Radoszkowski, 1887b:96. – Pagliano, 2008:542 (specimens in M. Spinola collection, Torino). – **As *Larra unicolor***: Pagliano, 2008:542, 543 (specimens in M. Spinola collection, Torino)
- Larra confusa* Radoszkowski, 1887b:96, ♀, ♂. Syntypes: Transcaspia and Caucasus: no specific locality (Kraków). Synonymized with *Notogonia pompiliformis* by de Beaumont, 1936b:621. – Radoszkowski, 1892:590 (reference to Radoszkowski, 1887); Dalla Torre, 1897:665 (in catalog of world Hymenoptera).
- Larra nigriventris* Cameron, 1889c:127, sex not stated. Syntypes: India: Allahabad, Barrackpore, Pune, and Tirhoot (OXUM). Synonymized with *Notogonia nigra* by R. Turner, 1917e:196. – Bingham, 1897:201 (redescription); Dalla Torre, 1897:671 (in catalog of world Hymenoptera); Rothney, 1903:104 (India: West Bengal: Barrackpore); S. Gupta, 1995:86 (India: Uttar Pradesh); Munasinghe and Edirisinghe, 2007:78 (Sri Lanka: Meewathura Agriculture Farm).
- Tachytes germabensis* Radoszkowski, 1893b:490, ♂, ♀. Syntypes: Turkmenistan: Germab west of Ashgabat and Firyuza (Kraków). – de Beaumont, 1936b:620 (probable holotype in coll. Radoszkowski, Kraków). Synonymized with *Notogoniaidea pompiliformis* by de Beaumont, 1936b:521. – **As *Tachysphex germabensis***: Dalla Torre, 1897:680 (new generic assignment, in catalog of world Hymenoptera).
- Larra nana* Bingham, 1897:200, ♀. Holotype: ♀, Burma: Tenasserim (BMNH). Synonymized with *Notogonia nigra* by R. Turner, 1917e:196. – Bingham, 1905:43 (Malaysia: Bukit Besar, Gedong); Yasumatsu, 1940b:97 (Botel Tobago Islands).
- Larra iridipennis* Cameron, 1900a:26, ♀. Holotype or syntypes: ♀, India: West Bengal: Barrackpore 20 km north of Calcutta (OXUM). Synonymized with *Notogonia nigra* by R. Turner, 1917e:196. – Rothney, 1903:103 (India: West Bengal: Barrackpore); Ramakrishna Aiyar, 1916:552 (in catalog of Indian aculeates described after Bingham, 1897).
- Notogoniaidea baguenai* Giner Marí, 1934:133 and 141, ♀. Holotype: ♀, Spain: Madrid (MNCN). Synonymized with *Liris nigra* by de Beaumont, 1949c:346. – Giner Marí, 1943a:126 (in Sphecidae Fauna of Spain); Martin Albaladeo and Izquierdo Moya, 2006:117 (type in Museo Nacional de Ciencias Naturales).
- As *Leptolarra agilis* (corrected to *Liris nigra* by de Beaumont, 1961f:239): Richards, 1935:164 (is the valid name for *Notogonia pompiliformis* of authors); de Beaumont, 1940a:17 (Egypt).
- As *Larra nitida*: Pagliano, 2008:542 (specimens in M. Spinola collection, Torino).

ssp. *namana* (Bischoff)

- Notogonia pompiliformis namana* Bischoff, 1913b:121, ♀. Holotype or syntypes: ♀, South Africa: Northern Cape Province: Steinkopf (ZMHU). – **As *Liris nigra namana***: R. Bohart and Menke, 1976:246 (new generic assignment, new subspecific generic assignment, in checklist of world Sphecidae).

194. *nigricans* (Walker)

- Larrada nigricans* Walker, 1871:21, ♀, ♂. Syntypes: Egypt: Cairo, and Sudan: Hor Tamanib (BMNH). – Innes Bey, 1912:111 (specimens recorded by Walker, 1871, now destroyed by dermestids, were collected in Hor Tamanib near Cairo). – **As *Larra nigricans***: Kohl, 1885a:246 (new generic assignment, in checklist of world *Larra*); Dalla Torre, 1897:670 (in catalog of world Hymenoptera). – **As *Notogonia nigricans***: R. Turner, 1917b:319 (new generic assignment; one syntype in BMNH; Egypt, Gibraltar, Cabo Verde Islands); Richards, 1928a:362 (in revision of Mediterranean species); Gussakovskij, 1938:7 (China: Kiangsu Province); Giner Marí, 1947:25 (Western Sahara), 1959:388 (Morocco: Fès; determination tentative). – **As *Notogoniaidea nigricans***: Arnold, 1930:6 (new generic assignment, in checklist of Afrotropical Sphecidae). – **As *Leptolarra nigricans***: Guiglia, 1937:186 (new generic assignment, Libya: Cyrenaica: Barce; redescription); de Beaumont, 1940a:18 (Egypt). – **As *Motes nigricans***: Guiglia, 1942b:233 (new generic assignment, Libya); Ceballos, 1956:375 (in catalog of Hymenoptera of Spain). – **As *Liris nigricans***: de Beaumont, 1947b:390 (new generic assignment, Cyprus), 1950d:14 (Egypt: Siwa oasis); Pittioni, 1950:24 (Cyprus); de Beaumont, 1955a:171 (Morocco), 1956a:196 (Libya; Chad: Tibesti), 1956d:2 (Cabo Verde Islands), 1958b:60 (Algeria: Tassili des Ajjer); Suárez in Giner Marí, 1959:400 (*Liris nigricans* is the correct name for *Notogonia nigricans* of Giner Marí, 1959:388); de Beaumont, 1960b:237 (Libya), 1961e:4 (Iraq),

- 1961f:234 (in revision of Mediterranean *Liris*), 1967a:330 (Turkey), 1968a:261 (Canary Islands: island of Gran Canaria); Simon Thomas, 1969a:120 (Canary Islands: island of Tenerife); de Beaumont, 1970a:400 (Afghanistan); de Beaumont, Bytinski-Salz and Pulawski, 1973:5 (Israel); R. Bohart and Menke, 1976:246 (in checklist of world Sphecidae); Georgioui, 1977:190 (Cyprus); Báez and Ortega, 1978:192 (Canary Islands); Guichard, 1978:271 (first record from Greece); Kazenas, 1978b:102, 103 (in key to Sphecidae of Kazakhstan and Central Asia); Pulawski, 1978:214 (in key to Sphecidae of European part of USSR); Guichard, 1980:227 (Oman); Wolf, 1980:72 (Canary Islands); Islamov, 1986:524 (Uzbekistan: Tashkent Oblast'); Gayubo and Mingo, 1988:74 (Spain); Dollfuss, 1993a:693 (Central African Republic: Kembe); Hohmann, La Roche, Ortega, and Barquín, 1993:220 (detailed locality records from Canary Islands); Simon Thomas and Wiering, 1993:404 (recorded from Cape Verde Islands by de Beaumont, 1956d); Torregrosa, Gayubo, Tormos, and Asís, 1993:18 (Spain: Alicante Province); Madl, 1997:820 (Madagascar: island of Nosy Boraha), 821 (in checklist of Nosy Boraha Sphecidae); Nazarova, 1998:40 (Tajikistan: Tigrovaya Balka Nature Reserve); Esenbekova and Kazenas, 2000:27 (southeastern Kazakhstan: near Bakanas, 30 km south-southwest of Koktal on Ili River); Kazenas, 2001:26 (in checklist of Sphecidae of Kazakhstan and Central Asia); K. Schmidt and Bitsch in Bitsch et al., 2001:205 (in Sphecid Fauna of Western Europe); Kazenas, 2002a:61 (geographic distribution, collecting localities in Kazakhstan); Pulawski, 2003b:797 (in checklist of Malagasy Sphecidae); Roche, 2007a:67 (in checklist of Egyptian Crabronidae), 2007a:66 (in checklist of Egyptian Crabronidae), 2007b:4 (in checklist of Egyptian Ampulicidae, Sphecidae, and Crabronidae, as *nigricans nigricans*); T. Li, Cai, and Q. Li, 2007:419, 421 (in key to *Liris* of China); Kazenas, 2008a:101 (southeastern Kazakhstan: Ili River valley: near Bakanas, 11 km south of Zharkent, 30 km southwest of Koktal); Ljubomirov, 2008:256 (known from La Palma, Canary Islands); Ljubomirov and Yildirim, 2008:193 (in catalog of Crabronidae of Turkey); T. Li, Cai, and Q. Li, 2009a:117, 118 (in key to Palearctic *Liris*); Schmid-Egger, 2011b:546 (first record from United Arab Emirates: Al-Ajban, north of Ajman, Dubai/al-Awir, Dubai/Nakhalai, Hatta, Sharjah Desert Park); Kazenas, 2013b:494 (southeastern Kazakhstan: 30 km south-southwest of Koktal on Ili River); Dunford, Turbyville, and Leavengood, 2014:10 (listed as medically important in Afghanistan); Madl, 2014a:970 (in catalog of Ampulicidae, Crabronidae, and Sphecidae of Madagascar, with synonymy and locality records); Schmid-Egger, 2014:579 (United Arab Emirates); Yıldırım, Ljubomirov, and Lelej, 2014:11 (distribution in Turkey by biogeographic provinces); Augul, 2015:285 (in revision of *Liris* of Iraq); Koçak and Kemal, 2015:146 (in checklist of Hymenoptera of Turkey); Rezaei and Fallahzadeh, 2015:8 (Iran: Fars: Kaftarak at 29°34'N 52°41'E); Mokrousov, Shlyakhtenok, and Grebennikov, 2016:27 (first record from Russia: Dagestan: 12 km south-southwest of Kizlyar on Terek River at 43.747°N 46.665°E); Sadeghi, Fallahzadeh, Ostovan, Ljubomirov, and Hesami, 2016:431 (Iran: Fars Province, as *nigricans nigricans*); Antropov, 2017b:237 (in catalog of Crabroninae of Russia); Fresno, 2017:149 (Spain: Málaga: La Viñuela); Jahan-tigh, Rakhshani, Mokhtari, and Ramroodi, 2017:66 (Iran: known from Fars and Guilan provinces); Sadeghi, Fallahzadeh, Ostovan, Ljubomirov, and Hesami, 2019a:271 (Iran: Fars: Kherameh: Dodej); Gadallah, 2020b:39 (in list of aculeate wasps of Arabian Peninsula); Ghaderipour, Khayrandish, Madjdzadeh, Ebrahimi, and Schmid-Egger, 2020:119 (Iran: Kerman); Ben Khedher, Yildirim, and Braham, 2021a:60 (Tunisia: Kairouan and Sidi Bouzid governorates); Kaplan and Yildirim, 2021:69 (in catalog of Crabronidae of Turkey); K. Schmidt, Straka, and Bitsch in Bitsch, Antropov, Gayubo, Leclercq, Schmid-Egger, K. Schmidt, and Straka, 2021:262 (in revision of Sphecidae *sensu lato* of Europe); Mawadda and Girish Kumar, 2023:113 (in checklist of Crabroninae of Northern India); Kaplan and Yildirim, 2023:1685 (in checklist of Sphecidae *sensu lato* of Turkey); Medetov, Embergenov, Kholmatov, Elmurodova, Rakhimov, and Tajibaeva, 2024:420 (Uzbekistan: distribution); Gülmez, Çubuk, and Can, 2025:170 (Turkey: Çanakkale: Kelkit River Valley).
- Notogonia argyropyga* A. Costa, 1875:17, ♀ (nec ♂ which = ?). Syntypes: Egypt: Fayum oasis (Napoli). Synonymized with *Liris nigricans* by de Beaumont, 1961f:235. – Richards, 1928a:361 (as synonym of *Notogonia memnonia*). – **As *Larra argyropyga***: Kohl, 1885a:241 (new generic assignment, in checklist of world *Larra*), 259 (original description copied); Dalla Torre, 1897:663 (in catalog of world Hymenoptera).
- Notogonia sculpturata* Kohl, 1892:221, ♂. Holotype: ♂, Egypt: no specific locality (NHMW). Synonymized with *Notogonia nigricans* by R. Turner, 1917b:319. – nec Antiga and Bofill, 1904:10, Mercet, 1910b:165, Berland, 1921, Bernard, 1934a:62, and Nouvel and Ribaut, 1958:13 (= *Liris festinans praetermissa*); Graeffe, 1906:455 (Tunisia: Tunis area); Morice, 1911:97 (Algeria: Alger, Biskra), 1921:824 (Iraq: Amara); Derwesh, 1965:70 (Iraq: no specific locality); Dollfuss, 1989:10 (type ma-

terial in NHMW). – **As *Larra sculpturata***: Kohl in Dalla Torre, 1897:673 (new generic assignment, in catalog of world Hymenoptera).

Notogonia reticulata de Saussure, 1892:512, ♀, ♂. Lectotype: ♀, Madagascar: Antananarivo or Anosibé in Bezanozano Province, or Imerina Province (MHNG), designated by Leclercq, 1961d:116 (specific locality not mentioned). Synonymized with *Liris nigricans* by de Beaumont, 1961f:234 – R. Turner, 1911b:370 (Seychelles Islands). – **As *Larra reticulata***: Kohl in Dalla Torre, 1897:673 (new generic assignment, in catalog of world Hymenoptera). – **As *Motes nigricans reticulata***: Leclercq, 1960a:97 (Madagascar), 1961d:116 (Madagascar). – **As *Liris nigricans reticulata***: Arnold, 1945:132 (new generic assignment, new status, in revision of Madagascar Sphecidae, Madagascar: Bekily). – **As *Liris nigricans* var. *reticulata***: Arnold, 1951:160 (new status, Ethiopia: Dilla).

Larra jugurthae Gribodo, 1894b:22, ♂, ♀ (as *Jugurthae*, incorrect original capitalization). Lectotype: ♂, "Algeria: Boghari, Biskra", correctly: Tunisia: Tunis (MSNG), designated by de Beaumont, 1950e:263. Synonymized with *Liris nigricans* by Guiglia, 1937:186, synonymy confirmed by de Beaumont, 1950e:263. – Zavattari, 1913a:4 (omitted from Dalla Torre's catalog, 1897); Penati and Mariotti, 2015:13 (reference to unpublished manuscript by Gribodo), 71 (in list of Hymenoptera described by G. Gribodo).

Larra palumbula Kohl, 1894:304, ♂. Holotype or syntypes: ♂, Cameroon: no specific locality (TMP). Synonymized with *Notogonia nigricans* by Richards, 1928a:362, and with *Notogonia reticulata* by Arnold, 1944:23. – Dalla Torre, 1897:671 (in catalog of world Hymenoptera). – **As *Notogonia palumbula***: Kohl, 1906a:219 (new generic assignment, Yemen: island of Socotra); R. Turner, 1917b:319 (merely the tropical race of *nigricans*). – **As *Notogonidea nigricans*, race *palumbula***: Arnold, 1923b:243 (new generic assignment, new status, in revision of southern African Sphecidae), 1930:6 (in checklist of Afrotropical Sphecidae); Schouteden, 1930:91 (Zaire).

Notogonia mahensis Cameron, 1907e:78, ♂. Holotype: ♂, Seychelles Islands: Mahé (BMNH), a headless specimen. Synonymized with *Notogonia reticulata* by R. Turner, 1911b:370.

Notogonia punctipleura Cameron, 1908a:285, ♂. Holotype or syntypes: ♂, Tanzania: Mount Kilimanjaro: Kibonoto (NRS). Synonymized with *Notogonidea nigricans palumbula* by R. Turner, 1917b:319.

ssp. *reticuloides* (Richards)

Leptolarra reticulata Cameron, 1900a:31, ♀, junior secondary homonym of *Liris reticulatus* (de Saussure, 1892). Holotype or syntypes: ♀, India: West Bengal: Barrackpore 20 km north of Calcutta (OXUM). – Rothney, 1903:104 (India: West Bengal: Barrackpore); Ramakrishna Aiyar, 1916:553 (in catalog of Indian aculeates described after Bingham, 1897). – **As *Notogonia reticulata***: R. Turner, 1917b:319 (new generic assignment, an Indian subspecies of *Notogonia nigricans*); Richards, 1928a:362 (as synonym of *Notogonia nigricans*); Sonan, 1940d:375 (Okinawa, as *reticulatum*). – **As *Notogonia nigricans reticulata*** R. Turner, 1917e:196 (new status; India: West Bengal: Barrackpore 20 km north of Calcutta, Matheran, Chapra).

Leptolarra nigricans reticuloides Richards, 1935:164. Substitute name for *Leptolarra reticulata* Cameron, 1900 (as new status). –

As *Liris nigricans reticuloides*: R. Bohart and Menke, 1976:246 (new generic assignment, in checklist of world Sphecidae).

Liris nigricans indica Arnold, 1945:132, junior secondary homonym of *Liris indicus* (Cameron, 1903). Substitute name for *Leptolarra reticulata* Cameron, 1900, new status.

195. *nigripes* (de Saussure)

Larrada nigripes de Saussure, 1867:74, ♀. Holotype or syntypes: ♀, Australia: Tasmania: no specific locality (NHMW). – Froggatt, 1892:218 (in catalog of Australian Hymenoptera); W. Schulz, 1911b:191 (redescription). – **As *Larra nigripes***: Kohl, 1885a:246 (new generic assignment, junior secondary homonym of *Larra nigripes* (Fabricius, 1793), in checklist of world *Larra*); Dalla Torre, 1897:670 (in catalog of world Hymenoptera, unreplaced junior secondary homonym of *Larra nigripes* (Fabricius, 1793)). – **As *Tachytes nigripes***: W. Schulz, 1911b:191 (tentative new generic assignment, additional description); R. Turner, 1916c:30 (tentative member of *Tachytes*). – **As *Liris nigripes***: R. Bohart and Menke, 1976:247 (tentative new generic assignment); Cardale, 1985:236 (in catalog of Australian Sphecidae); K. Walker, Naumann, Austin, Taylor, and Cardale, 1992:48 (in catalog of insects of Tasmania).

196. *nigrispinus* Krombein and Shanks Gingras

Liris nigrispinus Krombein and Shanks Gingras, 1984:59, ♂. Holotype: ♂, Mexico: Chiapas: Ixtapa (UCD). – Amarante, 2002:40 (in catalog of Neotropical Crabronidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:664 (in checklist of Mexican Sphecidae).

197. *nitens* (Arnold)

Notogonidea nitens Arnold, 1929c:394♂. Holotype: ♂, Zaire: Coquilhatville, now Mbandaka (MRAC). – Arnold, 1930:6 (in checklist of Afrotropical Sphecidae); Schouteden, 1930:91 (Zaire). – **As *Liris nitens***: R. Bohart and Menke, 1976:247 (new generic assignment, in checklist of world Sphecidae).

198. *novaguineanus* Tsuneki

Liris novaguineanus Tsuneki, 1983c:16, ♂ (subgenus *Leptolarra*). Holotype: ♂, Papua New Guinea: Huon Golf: Sattelberg (TMB). – Tsuneki, 1983c:29 (in key to *Liris* of Papua New Guinea).

199. *nugax* (Kohl)

Larra nugax Kohl, 1894:302, ♂. Holotype or syntypes: ♂, South Africa: KwaZulu-Natal: Port Natal, now Durban (TMP). – Dalla Torre, 1897:671 (in catalog of world Hymenoptera). – **As *Notogonidea nugax***: Arnold, 1923b:232 (new generic assignment, in revision of southern African Sphecidae), 1930:6 (in checklist of Afrotropical Sphecidae). – **As *Liris nugax***: Arnold, 1951:159 (new generic assignment, Ethiopia: Didessa River, Dilla); R. Bohart and Menke, 1976:247 (in checklist of world Sphecidae).

Notogonia dixeyi Bingham, 1912:377, ♀. Holotype: ♀, South Africa: KwaZulu-Natal: The Bluff near Durban (OXUM). Synonymized with *Notogonidea nugax* by Arnold, 1923b:232.

Notogonia pilosifrons R. Turner, 1916c:252, ♀. Holotype or syntypes: ♀, Malawi: Mlanje (BMNH). Synonymized with *Notogonidea nugax* by Arnold, 1923b:232.

200. *obliquetruncatus* (R. Turner)

Notogonia obliquetruncata R. Turner, 1908:479, ♀. Holotype or syntypes: ♀, Australia: Northern Territory: Darwin (BMNH). – R. Turner, 1916e:283 (in revision of Australian *Liris*). – **As *Liris obliquetruncata***: R. Bohart and Menke, 1976:247 (new generic assignment, in checklist of world Sphecidae); Cardale, 1985:236 (in catalog of Australian Sphecidae); Naumann, 1993:185 (Australia: Queensland: Heathlands area in Cape York), 1998:186 (Australia: northwest Queensland: Musselbrook area, approximately 18°40'S 138°23'E).

201. *obtusedentatus* (Maidl)

Notogonia obtusedentata Maidl, 1925a:387, ♀. Holotype: ♀, Indonesia: Sumatra: no specific locality (NHMW). – **As *Liris obtusedentata***: R. Bohart and Menke, 1976:247 (new generic assignment, in checklist of world Sphecidae); Dollfuss, 1989:10 (type material in NHMW).

202. *odontophorus* (Kohl)

Larra odontophora Kohl, 1894b:298, ♀. Holotype or syntypes: ♀, Guinea: Conacry (TMP). – Dalla Torre, 1897:671 (in catalog of world Hymenoptera). – **As *Motes odontophora***: Kohl, 1897:351 (new generic assignment). – **As *Notogonidea odontophora***: Arnold, 1923b:240 (new generic assignment, in revision of southern African Sphecidae), 1930:6 (in checklist of Afrotropical Sphecidae). – **As *Liris odontophora***: R. Bohart and Menke, 1976:247 (new generic assignment, in checklist of world Sphecidae).

203. *opalipennis* (Kohl)

Notogonia opalipennis Kohl, 1898b:98, ♀. Syntypes: ♀, Algeria: Oran and Biskra. – Morice, 1911:97 (Algeria: Biskra); Richards, 1928a:357 (in key to Mediterranean *Liris*, female only), 360 (in revision of Mediterranean species). – **As *Liris opalipennis***: de Beaumont, 1950d:15 (new generic assignment, Egypt: Siwa oasis, redescription, description of ♂), 1961f:241 (in revision of Mediterranean *Liris*); Myartseva, 1972a:80 (Turkmenistan); Kazenas, 1978b:103, 104 (in key to Sphecidae of Kazakhstan and Central Asia); Nazarova, 1998:40 (Tajikistan: Tigrovaya Balka Nature Reserve); Kazenas, 2001:26 (in checklist of

Sphecidae of Kazakhstan and Central Asia); Roche, 2007a:68 (in checklist of Egyptian Crabronidae, as *opalipennis opalipennis*), 2007b:4 (in checklist of Egyptian Ampulicidae, Sphecidae, and Crabronidae, as *opalipennis opalipennis*); T. Li, Cai, and Q. Li, 2009a:117, 119 (in key to Palearctic *Liris*); Schmid-Egger, 2011b:546 (first record from United Arab Emirates: north of Ajman, Wadi Safal), 550 (color photographs of male and female), 2014:579 (United Arab Emirates); Mokrousov, 2015a:538 (southeastern European Russia); Antropov, 2017b:37 (in catalog of Crabroninae of Russia); Gadallah, 2020b:39 (in list of aculeate wasps of Arabian Peninsula).

ssp. *cypriacus* de Beaumont

Liris opalipennis cypriacus de Beaumont, 1961f:241, ♀, ♂ (as *cypriaca*, incorrect original termination). Holotype: ♀, Cyprus: Akrotiri Bay (RMNH). – R. Bohart and Menke, 1976:247 (in checklist of world Sphecidae).

204. *ordinarius* Arnold

Notogonidea ordinaria Arnold, 1932:2, ♂. Holotype: ♂, Zaire: Ubangi District: Libenge (Zool. Mus. Hamburg, lost in World War II). – **As *Liris ordinaria***: R. Bohart and Menke, 1976:247 (new generic assignment, in checklist of world Sphecidae).

205. *ornatitarsis* (Cameron)

Notogonia ornatitarsis Cameron, 1911:200, [♀]. Holotype or syntypes: ♀, New Guinea: island of Bivak (RMNH). – Tsuneki, 1983c:29 (in list of *Liris* recorded from New Guinea, main diagnostic characters). – **As *Liris ornatitarsis***: R. Bohart and Menke, 1976:247 (new generic assignment, in checklist of world Sphecidae).

206. *pacificatrix* (R. Turner)

Larra pacificatrix R. Turner, 1908:474, ♀. Holotype or syntypes: ♀, Vanuatu: no specific locality (OXUM). – **As *Liris pacificatrix***: Cheesman, 1937:205 (new generic assignment, Vanuatu, description of ♂); R. Bohart and Menke, 1976:247 (in checklist of world Sphecidae); Villemant, 2011:134 (Vanuatu: island of Espiritu Santo).

207. *palawanus* Tsuneki

Liris palawanus Tsuneki, 1976b:62, ♀ (as *palawana*, incorrect original termination). Holotype: ♀: Philippines: Palawan: Tagembung (ZMUC). – Tsuneki, 1976b:72 (insertion into key to *Liris* of Williams, 1928a, as *palawanensis*), 1983a:46 (in key to *Liris* of Philippines).

208. *panamensis* (Cameron)

Notogonia panamensis Cameron, 1889a:59, ♂. Syntypes: ♂, Panama: Bugaba and Volcán de Chiriquí (BMNH). – Ashmead, 1899d:249 (in checklist of North American Crabronidae). – **As *Larra panamensis***: Kohl in Dalla Torre, 1897:671 (new generic assignment, in catalog of world Hymenoptera). – **As *Liris panamensis***: R. Bohart and Menke, 1976:247 (new generic assignment, in checklist of world Sphecidae); Krombein, 1979:1619 (in catalog of North American Hymenoptera, as *panamensis panamensis*); Krombein and Shanks Gingras, 1984:53 (in revision of North American *Liris*; as *panamensis panamensis*); Hanson and Menke, 1995:639 (known from Panama); Amarante, 2002:40 (in catalog of Neotropical Crabronidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:664 (in checklist of Mexican Sphecidae); Horta Vega, Pinson Domínguez, Barrientos Lozano, and Correa Sandoval, 2007: 45 (Mexico: Tamaulipas, as *panamensis panamensis*); Horta-Vega, Vanoye-Eligio, García-Gutiérrez, Coronado-Blanco, and Barrientos-Lozano, 2013:383 (Mexico: Tamaulipas: Ciudad Victoria: Cañón del Novillo, as *panamensis panamensis*).

Notogonidea sternalis Rohwer, 1914:519, ♂. Holotype: ♂, Guatemala: Gualan (USNM). Synonymized with *Liris panamensis* by Krombein, 1979:1619. – **As *Liris sternalis***: R. Bohart and Menke, 1976:248 (new generic assignment, in checklist of world Sphecidae); Hanson and Menke, 1995:639 (known from Costa Rica).

ssp. *muesebecki* Krombein

Motes muesebecki Krombein, 1954b:15, ♂, ♀. Holotype: ♂, USA: Florida: Dade County: Miami (USNM). – Krombein, 1954b:16 and 17 (in key to North American *Motes*), 1958f:188 (Florida, ?Texas). – **As *Liris muesebecki***: Krombein and Evans, 1954:233 (new generic assignment, Florida), 1955:232 (Florida); R. Bohart and Menke, 1976:246 (in checklist of world

Sphecidae); Kurczewski, 1976:330 (nest, prey); Steiner, 1986:101 (references to papers on nesting habits). – **As *Liris panamensis muesebecki***: Krombein, 1979:1619 (new status, in catalog of North American Hymenoptera); Krombein and Shanks Gingras, 1984:56 (in revision of North American *Liris*).

209. *papuanus* Tsuneki

Liris papuanus Tsuneki, 1983c:8, ♀ (subgenus *Liris* s. s.). Holotype: ♀, Papua New Guinea: Erima, Astrolabe Bay (TMB).

210. *papuensis* Tsuneki

Liris papuensis Tsuneki, 1983c:26, ♂ (subgenus *Leptolarra*). Holotype: ♂, New Guinea: Friedrichwilhelmshafen, now Madang (TMB). – Tsuneki, 1983c:30 (in key to *Liris* of Papua New Guinea).

211. *partitus* Krombein and Shanks Gingras

Liris partitus Krombein and Shanks Gingras, 1984:47, ♀. Holotype: ♀, Texas: Hidalgo County: Bentsen Rio Grande State Park (USNM). – Hook, 1998:250 (Texas: Austin); Amarante, 2002:41 (in catalog of Neotropical Crabronidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:664 (in checklist of Mexican Sphecidae); Horta Vega, Pinson Domínguez, Barrientos Lozano, and Correa Sandoval, 2007: 45 (Mexico: Tamaulipas); Horta-Vega, Vanoye-Eligio, García-Gutiérrez, Coronado-Blanco, and Barrientos-Lozano, 2013:383 (Mexico: Tamaulipas: Ciudad Victoria: Cañón del Novillo).

212. *parvulus* (Schrottky)

Larra parvula Schrottky, 1903a:42, ♀. Holotype or syntypes: ♀, Brazil: São Paulo: Jundiahy (depository?). – R. Bohart and Menke, 1976:238 (in checklist of world Sphecidae). – **As *Liris parvulus***: Menke, 1992d:175 (new generic assignment); Amarante, 2002:41 (in catalog of Neotropical Crabronidae).

213. *parvus* (Cameron) (preoccupied)

Notogonia parva Cameron, 1903b:119, ♀, junior secondary homonym of *Liris parva* Magretti, 1884. Holotype or syntypes: ♀, India: West Bengal: Barrackpore 20 km north of Calcutta (OXUM). – Rothney, 1903:104 (India: West Bengal: Barrackpore); Ramakrishna Aiyar, 1916:552 (in catalog of Indian aculeates described after Bingham, 1897). – **As *Liris parva***: R. Bohart and Menke, 1976:247 (new generic assignment, in checklist of world Sphecidae).

214. *peruanus* (Brèthes)

Notogonia peruana Brèthes, 1924:15, ♂. Holotype: ♂, Peru: ?Lima (MACN). – **As *Liris peruana***: R. Bohart and Menke, 1976:247 (new generic assignment, in checklist of world Sphecidae); Genise, 1990:26 (type material in MACN). – **As *Liris peruanus***: Amarante, 2002:41 (in catalog of Neotropical Crabronidae); Rasmussen and Asenjo, 2009:10 (in checklist of Crabronidae of Peru).

215. *peterseni* Tsuneki

Liris peterseni Tsuneki, 1976b:60, ♀. Holotype: ♀, Philippines: Tawi Tawi: Tarawakan (ZMUC). – Tsuneki, 1976b:72 (insertion into key to *Liris* of Williams, 1928a), 1983a:45 (in key to *Liris* of Philippines).

216. *picipes* (Cameron)

Notogonia picipes Cameron, 1903b:125, ♀. Holotype or syntypes: ♀, India: West Bengal: Barrackpore 20 km north of Calcutta (OXUM). – Rothney, 1903:104 (India: West Bengal: Barrackpore); Ramakrishna Aiyar, 1916:552 (in catalog of Indian aculeates described after Bingham, 1897). – **As *Liris picipes***: R. Bohart and Menke, 1976:247 (new generic assignment, in checklist of world Sphecidae).

217. *pictipennis* (Maidl)

Notogonia pictipennis Maidl, 1924:238, ♀, ♂. Syntypes: Sudan: El Obeid (NHMW). – **As *Liris pictipennis***: de Beaumont, 1961f:249 (new generic assignment; recognition characters); R. Bohart and Menke, 1976:247 (in checklist of world Sphecidae); Roche, 2007b:4 (in checklist of Egyptian Ampulicidae, Sphecidae, and Crabronidae).

218. piliventris (Cameron)

Notogonia piliventris Cameron, 1903b:118, ♀. Holotype or syntypes: ♀, India: West Bengal: Barrackpore 20 km north of Calcutta (OXUM). – Rothney, 1903:104 (India: West Bengal: Barrackpore); Ramakrishna Aiyar, 1916:552 (in catalog of Indian aculeates described after Bingham, 1897). – **As *Liris piliventris***: R. Bohart and Menke, 1976:247 (new generic assignment, in checklist of world Sphecidae).

219. pilosus (Cameron)

Notogonia pilosa Cameron, 1903:125, ♂. Holotype or syntypes: ♂, India: West Bengal: Barrackpore 20 km north of Calcutta (OXUM). – Rothney, 1903:104 (India: West Bengal: Barrackpore); Ramakrishna Aiyar, 1916:552 (in catalog of Indian aculeates described after Bingham, 1897). – **As *Liris pilosa***: R. Bohart and Menke, 1976:247 (new generic assignment, in checklist of world Sphecidae).

220. pitamawa (Rohwer)

Cratolarra pitamawa Rohwer, 1919:7, ♀. Holotype: ♀, Philippines: Luzon: Los Baños (USNM). Synonymized with *Cratolarra fuscinerva* by Tsuneki, 1966g:8, but used as valid name in his subsequent papers. – F. Williams, 1919d:136 (Philippines: Luzon: Los Baños: nesting habits); G. Carpenter, 1930b:299 (nest closure); Piek and Spanjer, 1986:184 (in list of Sphecidae with known prey). – **As *Notogonidea pitamawa***: F. Williams, 1928a:80 (new generic assignment, in revision of *Liris* of Philippines). – **As *Motes pitamawa***: Baltazar, 1966:332 (new generic assignment, in catalog of Hymenoptera of Philippines). – **As *Liris pitamawa***: Tsuneki, 1967b:9, 15 (in key to Larrinae of Taiwan), 41 (new generic assignment, Taiwan; *Cratolarra* redescribed as subgenus of *Liris*; additional description of *Liris pitamawa*); Haneda, 1971b:29 (Taiwan); Tsuneki, 1971h:2 (Taiwan); Haneda, 1972a:3 (Taiwan); Murota, 1973b:118 (Taiwan); Tsuneki, 1974b:612 (Thailand); R. Bohart and Menke, 1976:247 (in checklist of world Sphecidae); Tsuneki, 1976b:59 (Philippines), 1977j:269 (Taiwan: Kagi, Takao), 1982e:26 (Taiwan; type species of subgenus *Pitaliris*), 1983a:9 (Philippines; additional description); Wu and Zhou, 1996a:79 (in revision in Economic Insect Fauna of China); Porter, Stange, and Wang, 1999:8 (in checklist of Sphecidae of Taiwan); Haneda, 2011:45 (Philippines: Palawan).

221. plebejus (Taschenberg)

Larrada plebeja Taschenberg, 1870:4, ♀, ♂. Lectotype: ♂, Brazil: Minas Gerais: Lagoa Santa (Halle), designated by Menke in R. Bohart and Menke, 1976:247. – **As *Larra plebeja***: Kohl, 1885a:246 (new generic assignment, in checklist of world *Larra*); Dalla Torre, 1897:672 (in catalog of world Hymenoptera). – **As *Liris plebeja***: Menke in R. Bohart and Menke, 1976:247 (new generic assignment, in checklist of world Sphecidae); Amarante, 2002:41 (in catalog of Neotropical Crabronidae); Rasmussen and Asenjo, 2009:10 (in checklist of Crabronidae of Peru).

222. pluto (F. Smith)

Tachytes pluto F. Smith, 1856:305, ♀. Holotype or syntypes: ♀, Brazil: no specific locality (BMNH). – Dalla Torre, 1897:693 (in catalog of world Hymenoptera). – **As *Liris pluto***: R. Bohart and Menke, 1976:247 (new generic assignment, in checklist of world Sphecidae); Amarante, 2002:41 (in catalog of Neotropical Crabronidae).

223. politicus (Dalla Torre)

Larrada polita Taschenberg, 1870:3 ♀, junior primary homonym of *Larrada polita* F. Smith, 1857. Holotype: ♀, Brazil: Minas Gerais: Congonhas (Halle). – **As *Larra polita***: Kohl, 1885a:247 (new generic assignment, in checklist of world *Larra*). *Larra politica* Dalla Torre, 1897:672. Substitute name for *Larra polita* (Taschenberg, 1870). – **As *Liris politica***: Menke in R. Bohart and Menke, 1976:247 (new generic assignment, in checklist of world Sphecidae). – **As *Liris politicus***: Amarante, 2002:41 (in catalog of Neotropical Crabronidae); Rasmussen and Asenjo, 2009:10 (in checklist of Crabronidae of Peru);

224. primanius (Kohl)

Larra primania Kohl, 1894:301, ♀. Holotype or syntypes: ♀, Liberia: Junk River (TMP). – Dalla Torre, 1897:672 (in catalog of world Hymenoptera). – **As *Notogonidea primania***: Arnold, 1923b:235 (new generic assignment, in revision of southern African Sphecidae), 1930:6 (in checklist of Afrotropical Sphecidae). – **As *Leptolarra primania***: Guiglia, 1939d:76 (new gener-

ic assignment, Ethiopia: Sidamo: Malca Guba). – **As *Liris primania***: R. Bohart and Menke, 1976:247 (new generic assignment, in checklist of world Sphecidae).

225. *pruinus* (F. Smith)

Larrada pruinosa F. Smith, 1873b:56, ♀. Holotype or syntypes: ♀, Brazil: Amazonas: Ega, now Tefé (BMNH). – **As *Larra pruinosa***: Kohl, 1885a:247 (new generic assignment, in checklist of world *Larra*); Dalla Torre, 1897:672 (in catalog of world Hymenoptera). – **As *Liris pruinosa***: R. Bohart and Menke, 1976:247 (new generic assignment, in checklist of world Sphecidae). – **As *Liris pruinus***: Amarante, 2002:41 (in catalog of Neotropical Crabronidae).

226. *pruinus* (Cameron) (preoccupied)

Chrysolarra pruinosa Cameron, 1901b:121, ♀, junior secondary homonym of *Liris pruinus* (F. Smith, 1873). Holotype or syntypes: ♀, Malaysia: Borneo: Matang (BMNH). – **As *Liris pruinosa***: R. Bohart and Menke, 1976:247 (new generic assignment, in checklist of world Sphecidae).

227. *pulcherrimus* (Cameron)

Notogonia pulcherrima Cameron, 1902c:285, ♀, ♂. Syntypes: ♀, India: Gujarat: Deesa (BMNH). – Ramakrishna Aiyar, 1916:552 (in catalog of Indian aculeates described after Bingham, 1897). – **As *Liris pulcherrima***: R. Bohart and Menke, 1976:247 (new generic assignment, in checklist of world Sphecidae). – **As *Liris pulcherrimus***: Mawadda and Girish Kumar, 2023:114 (in checklist of Crabroninae of Northern India).

228. *punctatus* Tsuneki

Liris punctatus Tsuneki, 1974b:610, ♂ (as *punctata*, incorrect original termination). Holotype: ♂, Thailand: Mae-Tang (originally K. Tsuneki coll., now USNM). – R. Bohart and Menke, 1976:629 (in checklist of world Sphecidae); Nuhn and Menke, 1994:26 (holotype transferred to USNM).

229. *pygidialis* Tsuneki

Liris pygidialis Tsuneki, 1982a:23, ♂, ♀. Holotype: ♂, Papua New Guinea: New Ireland: Lemkamin (ZMUC). – Tsuneki, 1982a:19 (in key to *Liris* of South Pacific islands).

230. *pygmaeus* (Cameron)

Notogonia pygmaea Cameron, 1903b:124, ♀. Holotype or syntypes: ♀, India: West Bengal: Barrackpore 20 km north of Calcutta (OXUM). – Rothney, 1903:104 (India: West Bengal: Barrackpore); Ramakrishna Aiyar, 1916:552 (in catalog of Indian aculeates described after Bingham, 1897, as *pygmoea*). – **As *Liris pygmaea***: R. Bohart and Menke, 1976:247 (new generic assignment, in checklist of world Sphecidae).

231. *quadrifasciatus* (F. Smith)

Larrada quadrifasciata F. Smith, 1856:289, ♀. Holotype or syntypes: ♀, Brazil: Pará: Santarém (BMNH). – **As *Larra quadrifasciata***: Kohl, 1885a:247 (new generic assignment, in checklist of world *Larra*); Dalla Torre, 1897:672 (in catalog of world Hymenoptera). – **As *Liris quadrifasciata***: R. Bohart and Menke, 1976:247 (new generic assignment, in checklist of world Sphecidae). – **As *Liris quadrifasciatus***: Amarante, 2002:41 (in catalog of Neotropical Crabronidae).

232. *radialis* (de Saussure)

Notogonia radialis de Saussure, 1887:17, ♂. Lectotype: ♂, Madagascar: no specific locality (MHNG), designated by Arnold, 1940:123. – de Saussure, 1892:467 (Madagascar, redescription); nec Arnold, 1929:394 (= *Liris memnonius*); Giordani Soika, 1939c:101 (Eritrea: Asmara). – **As *Larra radialis***: Dalla Torre, 1897:673 (new generic assignment, in catalog of world Hymenoptera). – **As *Notogonidea radialis***: Arnold, 1930:6 (new generic assignment, in checklist of Afrotropical Sphecidae). – **As *Motes radialis***: Arnold, 1940:123 (new generic assignment, synonymy); Guiglia, 1943c:76 (Ethiopia: Gamo Gofa: Sagan – Omo region), 1950:258 (Ethiopia: Gamo Gofa: Asile, Caschei, Gongabaino); Leclercq, 1960a:97 (Madagascar), 1961d:114 (Madagascar, illegal designation of lectotype). – **As *Leptolarra radialis***: Guiglia, 1939d:76 (new generic assignment, Ethiopia: Sidamo: Malca Guba). – **As *Liris radialis***: Arnold, 1945:127 (new generic assignment, in revision of Madagascar Sphe-

cidae: redescription and interpretation of the species); R. Bohart and Menke, 1976:247 (in checklist of world Sphecidae); Pulawski, 2003b:797 (in checklist of Malagasy Sphecidae); Madl, 2014a:971 (in catalog of Ampulicidae, Crabronidae, and Sphecidae of Madagascar, with synonymy and locality records).

Notogonia radamae de Saussure, 1891:260, ♂ (as *Radamae*, incorrect original capitalization). Holotype or syntypes: ♂, Madagascar: no specific locality (MHNG). Synonymized with *Liris radialis* by Leclercq, 1961d:114. – Friese, 1900:267 (Madagascar: Nosy-Be). – **As *Larra radamae***: Kohl in Dalla Torre, 1897:673 (new generic assignment, in catalog of world Hymenoptera). – **As *Liris radamae***: Arnold, 1945:127 (new generic assignment, in revision of Madagascar Sphecidae, as *Radamae*).

As *Notogonidea sepulchralis*: Arnold, 1923b:244 (in revision of southern African Sphecidae), corrected to *Notogonidea radialis* by Arnold, 1929c:394.

233. *radulinus* Evans

Liris radulinus Evans, 1972b:14, ♂ (as *radulina*, incorrect original termination). Holotype: ♂, Caribbeans: island of Dominica: Grand Bay (USNM). Paratypes: Barbados. – R. Bohart and Menke, 1976:247 (in checklist of world Sphecidae). – **As *Liris radulinus***: Amarante, 2002:41 (in catalog of Neotropical Crabronidae).

234. *reconditus* (R. Turner)

Notogonia recondita R. Turner, 1916e:284, ♀. Syntypes: ♀, Australia: Queensland: Kuranda (BMNH). – **As *Liris recondita***: R. Bohart and Menke, 1976:247 (new generic assignment, in checklist of world Sphecidae); Cardale, 1985:236 (in catalog of Australian Sphecidae).

235. *regina* (R. Turner)

Notogonia regina R. Turner, 1908:475, ♀. Syntypes: Australia: Queensland: Cairns, Mackay, and Cape York (BMNH). – R. Turner, 1916e:282 (in revision of Australian *Liris*). – **As *Liris regina***: R. Bohart and Menke, 1976:247 (new generic assignment, in checklist of world Sphecidae); Cardale, 1985:236 (in catalog of Australian Sphecidae); Naumann, 1993:185 (Australia: Queensland: Heathlands area in Cape York).

236. *retirugosus* T. Li, Cai, and Q. Li

Liris retirugosus T. Li, Cai, and Q. Li, 2009a:115, ♂. Holotype: ♂, China: Yunnan: Jingdong County: Jinping Town: western mountain (Yunnan Agricultural University, Kunming). – T. Li, Cai, and Q. Li, 2009:a119 (in key to Palearctic *Liris*).

237. *robustoides* (F. Williams)

Notogonidea robustoides F. Williams, 1928:77, ♀, ♂ (♂ = *Liris banoensis* Tsuneki, 1983). Holotype: ♀, Philippines: Luzon: Los Baños (Bishop Mus.). – **As *Motes robustoides***: Baltazar, 1966:332 (new generic assignment, in catalog of Hymenoptera of Philippines). – **As *Liris robustoides***: R. Bohart and Menke, 1976:247 (new generic assignment, in checklist of world Sphecidae); Tsuneki, 1976b:62 (Philippines; redescription; as *lobustoides*), 1977i:4 (spelling corrected to *robustoides*), 1983a:34 (Philippines; taxonomic comments), 38 (aberrant specimen), 45, 48 (in key to *Liris* of Philippines), 106 (study of holotype); Haneda, 2011:45 (Philippines: Palawan: Calaucasan and Iwahig); Pham and Antropov, 2021:317 (in key to *Liris* of Vietnam), 320 (first record from Vietnam: Vinh Phuc: Me Linh Station or Biodiversity).

238. *robustus* (F. Williams)

Notogonidea robusta F. Williams, 1928:79, ♀, ♂. Holotype: ♀, Philippines: Luzon: Los Baños, Mount Makiling (Bishop Mus.). – **As *Motes robusta***: Baltazar, 1966:332 (new generic assignment, in catalog of Hymenoptera of Philippines). – **As *Liris robusta***: R. Bohart and Menke, 1976:247 (new generic assignment, in checklist of world Sphecidae); Tsuneki, 1976b:62 (Philippines; additional description, as *lobusta*), 1977i:4 (spelling corrected to *robusta*). – **As *Liris robustus***: Tsuneki, 1983a:33 (Philippines; valid recognition characters), 38 (aberrant specimen), 45, 48 (in key to *Liris* of Philippines); Haneda, 2011:45 (Philippines: Palawan: Aborlan).

ssp. planatus Tsuneki

Liris robustus planatus Tsuneki, 1963c:10, ♀, ♂ (as *robusta planata*, incorrect original termination). Holotype: ♀, Thailand: Muangfang (Sasayama Univ.).

239. rohweri (F. Williams)

Notogonidea rohweri F. Williams, 1928a:78, ♀, ♂. Holotype: ♀, Philippines: Luzon: Los Baños, Mount Makiling (Bishop Mus.). – **As *Motes rohweri***: Baltazar, 1966:332 (new generic assignment, in catalog of Hymenoptera of Philippines). – **As *Liris rohweri***: R. Bohart and Menke, 1976:247 (new generic assignment, in checklist of world Sphecidae); Tsuneki, 1976b:72 (insertion into key to *Liris* of Williams, 1928a), 1983a:24 (Philippines; taxonomic comments), 46, 48 (in key to *Liris* of Philippines); Porter, Stange, and Wang, 1999:8 (in checklist of Sphecidae of Taiwan); Yamane, Ikudome, and Terayama, 1999:513 (in Identification Guide to Crabronidae of Nansei = Ryukyu Islands, Japan); T. Li, Cai, and Q. Li, 2007:421, 423 (in key to *Liris* of China). – **Nec following authors** (= *Liris rohweri formosanus*): Tsuneki, 1966g:2, 1967b:10, 15, and 31, 1967i:389; Haneda, 1971b:29; Tsuneki, 1971h:4; Haneda, 1972a:3; Tano, 1972:23)

ssp. formosanus Tsuneki

As *Liris rohweri* (corrected to *Liris formosanus* by Tsuneki, 1973n:113): Tsuneki, 1966g:2 (Taiwan, Ryukyu Islands; redescription), 1967b:10, 15 (in key to Larrinae of Taiwan), 31 (Taiwan), 1967i:389 (Taiwan); Haneda, 1971b:29 (Taiwan); Tsuneki, 1971h:4 (Taiwan); Haneda, 1972a:3 (Taiwan); Tano, 1972:23 (Japan: Ryukyu Islands).

Liris formosanus Tsuneki, 1973n:113, ♀, ♂ (as *formosana*, incorrect original termination). Holotype: ♂, Taiwan: Chiayi Prefecture: Chuchi (originally K. Tsuneki coll., now USNM). – Murota, 1973b:118 (Taiwan); Tsuneki, 1977j:268 (Taiwan); Nuhn and Menke, 1994:25 (holotype transferred to USNM). – **As *Liris rohweri formosana***: Tsuneki, 1982e:27 (new status, Taiwan, Ryukyu Islands). – **As *Liris rohweri formosanus***: Tsuneki, 1982f:47 (Ryukyu Islands: island of Ishigaki), 1982g:59 (known from the Ryukyu archipelago); Hua, 2006:281 (in list of Chinese insects, geographic distribution); T. Li, Cai, and Q. Li, 2007:420, 423 (in key to *Liris* of China).

240. rubellus (F. Smith)

Larrada rubella F. Smith, 1856:280, ♀. Holotype or syntypes: ♀, Equatorial Guinea: Fernando Po (OXUM?). – **As *Larra rubella***: Kohl, 1885a:247 (new generic assignment, in checklist of world *Larra*); Dalla Torre, 1897:673 (in catalog of world Hymenoptera); Arnold, 1923b:226 (original description copied), 1930:6 (in checklist of Afrotropical Sphecidae). – **As *Liris rubella***: Menke in R. Bohart and Menke, 1976:247 (new generic assignment, in checklist of world Sphecidae).

Larra cyphononyx Kohl, 1894b:299, ♀. Holotype: ♀, Africa: Liberia: Samlia Falls (Inst. Roy. Sci. Nat. Belgique). Synonymized with *Liris rubella* by Menke in R. Bohart and Menke, 1976:247. – Dalla Torre, 1897:666 (in catalog of world Hymenoptera). – **As *Motes cyphononyx***: Kohl, 1897:351 (new generic assignment); R. Turner, 1916b:253 (Malawi, Uganda, Zambia). – **As *Notogonidea cyphononyx***: Arnold, 1923b:241 (new generic assignment, in revision of southern African Sphecidae), 1930:6 (in checklist of Afrotropical Sphecidae). – **As *Leptolarra cyphononyx***: Guiglia, 1939d:76 (new generic assignment, Ethiopia: Sidamo: Mulca Guba).

Larra chyphononyx W. Schulz, 1906:211. Unjustified emendation of *Larra cyphononyx* Kohl, 1894.

Liris arnoldi Benoit, 1951:129, ♂, ♀ (as *Arnoldi*, incorrect original capitalization). Holotype: ♂, Zaire: Ituri: Lake Albert, now Lake Mobutu Sese Seko: Kasenyi (MRAC). Synonymized with *Liris cyphononyx* by Arnold, 1959:331.

241. rubricatus (F. Smith)

Larrada rubricata F. Smith, 1856:286, ♀. Holotype or syntypes: ♀, Brazil: Pará: Belém (BMNH). – **As *Larra rubricata***: Kohl, 1885a:247 (new generic assignment, in checklist of world *Larra*); Dalla Torre, 1897:673 (in catalog of world Hymenoptera); Strand, 1910a:158 (Paraguay); Bodkin, 1918:316 (British Guiana: Rocksone on Essequibo River); Campos, 1922:64 (Ecuador: Durán). – **As *Liris rubricata***: R. Bohart and Menke, 1976:247 (new generic assignment, in checklist of world Sphecidae); Callan, 1991a:8 (Trinidad). – **As *Liris rubricatus***: Amarante, 2002:41 (in catalog of Neotropical Crabronidae); Starr and Hook, 2003:19 (in catalog of Aculeata of Trinidad, West Indies).

242. rubripes Tsuneki

Liris rubripes Tsuneki, 1982a:33, ♂. Holotype: ♂, Papua New Guinea: New Britain: Yalom (ZMUC). – Tsuneki, 1982a:17 (in key to *Liris* of South Pacific islands).

243. *rufipennis* Fabricius

Liris rufipennis Fabricius, 1804:228, sex not stated. Syntypes: ♂, South America: no specific locality (ZMUC). – van der Vecht, 1961a:23 (redescription of syntypes). – R. Bohart and Menke, 1976:247 (in checklist of world Sphecidae); Amarante, 2002:41 (in catalog of Neotropical Crabronidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:664 (in checklist of Mexican Sphecidae); Rasmussen and Asenjo, 2009:10 (in checklist of Crabronidae of Peru). – **As *Larra rufipennis***: Kohl in Dalla Torre, 1897:673 (new generic assignment, in catalog of world Hymenoptera); Ashmead, 1899d:249 (in checklist of North American Crabronidae), 1900:225 (Lesser Antilles: island of Saint Vincent), 306 (in checklist of Caribbean Hymenoptera); Casolari and Casolari Moreno, 1980:112 (specimens in M. Spinola collection, Torino); Pagliano, 2008:543 (specimens in M. Spinola collection, Torino). – **As *Notogonia rufipennis***: Bischoff and von Schulthess, 1937:169 (new generic assignment, Argentina: Tapikiolé).

Larrada decorata F. Smith, 1856:287, ♂. Holotype: ♂, Brazil: Pará: Belém (BMNH). Synonymized with *Liris rufipennis* by D. Vincent in Krombein and Shanks Gingras, 1984:46. – **As *Larra decorata***: Kohl, 1885a:243 (new generic assignment, in checklist of world *Larra*); Dalla Torre, 1897:666 (in catalog of world Hymenoptera). – **As *Notogonia decorata***: Poulton, 1918:xxxvii (new generic assignment, Brazil, prey). – **As *Liris decorata***: R. Bohart and Menke, 1976:245 (new generic assignment, in checklist of world Sphecidae).

Larrada truncata F. Smith, 1856:290, ♀. Holotype or syntypes: ♀, Brazil: no specific locality (BMNH). Synonymized with *Liris rufipennis* by D. Vincent in Krombein and Shanks Gingras, 1984:46. – **As *Larra truncata***: Kohl, 1885a:248 (new generic assignment, in checklist of world *Larra*); Dalla Torre, 1897:675 (in catalog of world Hymenoptera). – **As *Liris truncata***: R. Bohart and Menke, 1976:245 (new generic assignment, in checklist of world Sphecidae).

Notogonia compressifemur Giner Marí, 1944:355, ♀, ♂. Syntypes: Peru: no specific locality (Mus. Barcelona). Synonymized with *Liris rufipennis* by Menke in R. Bohart and Menke, 1976:247.

244. *rufitarsis* (Cameron)

Spanolarra rufitarsis Cameron, 1900a:33, ♀. Holotype or syntypes: ♀, India: West Bengal: Barrackpore 20 km north of Calcutta (OXUM). – Rothney, 1903:104 (India: West Bengal: Barrackpore); Ramakrishna Aiyar, 1916:552 (in catalog of Indian aculeates described after Bingham, 1897). – **As *Leptolarra rufitarsis***: Richards, 1935a:164 (new generic assignment). – **As *Liris rufitarsis***: R. Bohart and Menke, 1976:247 (new generic assignment, in checklist of world Sphecidae).

Caenolarra appendiculata Cameron, 1900a:29, ♂, junior secondary homonym of *Liris appendiculatus* (Taschenberg, 1870). Holotype or syntypes: ♂, India: West Bengal: Barrackpore 20 km north of Calcutta (OXUM). Synonymized with *Liris rufitarsis* by R. Bohart and Menke, 1976:247. – Rothney, 1903:104 (India: West Bengal: Barrackpore); Ramakrishna Aiyar, 1916:553 (in catalog of Indian aculeates described after Bingham, 1897). – **As *Leptolarra appendiculata***: Richards, 1935a:164 (new generic assignment).

245. *rufoscopus* (Cameron)

Notogonia rufoscopus Cameron, 1905i:321, ♀. Holotype or syntypes: ♀, South Africa: Eastern Cape Province: Dunbrody (TMP). – Brauns, 1917:242 (type material in TMP). – **As *Notogonidea rufoscopus***: Arnold, 1923b:233 (new generic assignment, in revision of southern African Sphecidae), 1930:6 (in checklist of Afrotropical Sphecidae), 1935a:498 (South Africa: Kalahari). – **As *Liris rufoscopus***: R. Bohart and Menke, 1976:247 (new generic assignment, in checklist of world Sphecidae).

246. *rufula* Simon Thomas

Liris rufula Simon Thomas, 1995b:121, ♀, ♂. Holotype: ♀, Senegal: 25-35 km S Richard Toll (LUW).

247. *rugifer* (R. Turner)

Motes rugifera R. Turner, 1918b:362, ♀. Holotype or syntypes: ♀, Uganda: Mabira Forest (BMNH). – **As *Notogonidea rugifera***: Arnold, 1923b:242 (new generic assignment, original description copied), 1930:6 (in checklist of Afrotropical Sphecidae); Schouteden, 1930:92 (Zaire). – **As *Liris rugifera***: Arnold, 1951:159 (new generic assignment, Ghana: Accra); R. Bohart and Menke, 1976:247 (in checklist of world Sphecidae).

248. *sabrinus* (Leclercq)

Motes sabrina Leclercq, 1961d:114, ♀. Holotype: ♀, Madagascar: Fianarantsoa Province: Ihosy (MHNH). – **As *Liris sabrina*:** R. Bohart and Menke, 1976:247 (new generic assignment, in checklist of world Sphecidae). – **As *Liris sabrinus*:** Pulawski, 2003b:797 (in checklist of Malagasy Sphecidae); Madl, 2014a:972 (in catalog of Ampulicidae, Crabronidae, and Sphecidae of Madagascar, with synonymy and locality records).

249. *sabulosus* (F. Smith)

Larrada sabulosa F. Smith, 1863a:35, ♀. Holotype or syntypes: ♀, Indonesia: Ceram, now Seram: no specific locality (BMNH). – F. Smith, 1863b:135 (known from Seram), 1871a:365 (in catalog of Oriental Aculeata). – **As *Larra sabulosa*:** Kohl, 1885a:247 (new generic assignment, in checklist of world *Larra*); Dalla Torre, 1897:673 (in catalog of World Hymenoptera). – **As *Liris sabulosa*:** R. Bohart and Menke, 1976:247 (new generic assignment, in checklist of world Sphecidae).

250. *sagax* Kohl

Liris sagax Kohl, 1892:225, ♂. Holotype or syntypes: ♂, ? India: Sikkim: no specific locality (NHMW). – Kohl, 1892:229 (in key to world *Liris* s.s.); W. Schulz, 1906:205 (omitted by Bingham, 1897); R. Bohart and Menke, 1976:247 (in checklist of world Sphecidae); Dollfuss, 1989:10 (type material in NHMW). – **As *Larra sagax*:** Kohl in Dalla Torre, 1897:673 (new generic assignment, in catalog of world Hymenoptera).

251. *samoensis* Menke

Notogonidea samoensis F. Williams, 1928c:34, ♀, ♂, secondary homonym of *Liris samoensis* F. Williams, 1928c:36. Holotype: ♀, Samoa: Island of Tutuila: Afono Trail (BMNH). – Perkins and Cheesman, 1928:5 (listed from Samoa); Krombein, 1949b:383 (in key to Sphecidae of Micronesia), 398 (discussion of specimens from Ponape and Samoa); Kami and Miller, 1998:57 (in checklist of Samoan insects).

Liris samoensis Menke in R. Bohart and Menke, 1976:247. Substitute name for *Liris samoensis* (F. Williams, 1928:34).

252. *samoensis* F. Williams

Liris samoensis F. Williams, 1928c:36, ♀, ♂. Holotype: ♀, Samoa: Upolu: Malololei (BMNH). – Perkins and Cheesman, 1928:6 (listed from Samoa); Cheesman, 1937:205 (recognition characters; Vanuatu); Yasumatsu, 1941:45 (Micronesia: island of Ponape); Krombein, 1949b:383 (in key to Sphecidae of Micronesia), 398 (recognition characters), 1950b:142 (in key to *Liris* of Micronesia); Fullaway, 1957:279 (in checklist of Hymenoptera of Fiji); Tsuneki, 1982a:12 (in key to *Liris* of South Pacific islands); R. Bohart and Menke, 1976:247 (in checklist of world Sphecidae); Kami and Miller, 1998:57 (in checklist of Samoan insects); Villemant, 2011:134 (Vanuatu: island of Espiritu Santo).

253. *scabriusculus* Arnold

Liris scabriusculus Arnold, 1945:131, ♂ (as *scabriuscula*, incorrect original termination). Syntypes: Madagascar: Bekily (MNH). – R. Bohart and Menke, 1976:247 (in checklist of world Sphecidae); Madl, 2014a:972 (in catalog of Ampulicidae, Crabronidae, and Sphecidae of Madagascar, with synonymy and locality records). – **As *Motes scabriuscula*:** Leclercq, 1961d:115 (new generic assignment, Madagascar). – **As *Liris scabriusculus*:** Pulawski, 2003b:797 (in checklist of Malagasy Sphecidae).

254. *semiappendiculatus* (Cameron)

Tachysphex semiappendiculatus Cameron, 1912a:434, ♀ (as *semiappendiculata*, incorrect original termination). Holotype or syntypes: ♀, Guyana: Demerara: no specific locality (BMNH). – **As *Liris semiappendiculata*:** R. Bohart and Menke, 1976:247 (new generic assignment, in checklist of world Sphecidae). – **As *Liris semiappendiculatus*:** Amarante, 2002:41 (in catalog of Neotropical Crabronidae).

255. *semicarinatus* Tsuneki

Liris semicarinatus Tsuneki, 1976b:69, ♀ (as *semicarinata*, incorrect original termination). Holotype: ♀, Philippines: Tawi Tawi: Tarawakan (ZMUC). – **As *Liris semicarinatus*:** Tsuneki, 1976b:73 (insertion into key to *Liris* of Williams, 1928a), 1983a:46 (in key to *Liris* of Philippines).

256. senegalensis Simon Thomas

Liris senegalensis Simon Thomas, 1995b:123, ♀. Holotype: ♀, Senegal: 25-35 km Richard Toll (LUW).

257. sepulchralis (Gerstaecker)

Lyrops sepulchralis Gerstaecker in Peters, 1858:510, ♀. Holotype or syntypes: ♀, Mozambique: no specific locality (ZMHU). –

As *Larra sepulchralis*: Casolari and Casolari Moreno, 1980:112 (new generic assignment, specimens in M. Spinola collection, Torino); Pagliano, 2008:543 (specimens in M. Spinola collection, Torino). – **As *Tachytes sepulchralis*:** Dalla Torre, 1897:694 (new generic assignment, in catalog of world Hymenoptera). – **As *Notogonia sepulchralis*:** Stadelmann, 1897:255 (new generic assignment based on study of type, as *sepulchralis*); W. Schulz, 1905b:9 (Cape Verde Islands: Saint Vincent). – **As *Notogonidea sepulchralis*:** Arnold, 1930:6 (new generic assignment, in checklist of Afrotropical Sphecidae); Schouteden, 1930:92 (Zaire); Scott in Arnold 1933a:36. (Ethiopia: Harar District). – **As *Motes sepulchralis*:** Arnold, 1940:142 (new generic assignment, redescription). – **As *Leptolarra sepulchralis*:** Guiglia, 1939d:76 (new generic assignment, Ethiopia: Sidamo: Malca Guba), 1940b:290 (Somalia, determination tentative). – **As *Liris sepulchralis*:** Arnold, 1945:132 (new generic assignment, synonymy, in revision of Madagascar Sphecidae); de Beaumont, 1967b:509 (South Africa: Cape Province); I. Robertson, 1969:480 (Tanzania: Ukiriguru); R. Bohart and Menke, 1976:247 (in checklist of world Sphecidae); Dollfuss, 1993a:693 (Central African Republic: Kembe).

Lyrops sepulchralis Gerstaecker, 1862:479, ♀. Objective synonym of *Lyrops sepulchralis* Gerstaecker, 1858.

Notogonia pompiliformis, race *intermedia* Arnold, 1923b:245, ♀, ♂, junior primary homonym of *Notogonia intermedia* Cameron, 1903. Syntypes: South Africa: Johannesburg, Willowmore; Zimbabwe: Bulawayo, Salisbury, now Harare (SAM, TMP). Synonymized with *Notogonidea sepulchralis* by Arnold, 1929c:394. – Arnold, 1929c:396 (variation), 1940:142 (redescription). – **As *Notogonidea pompiliformis* race *intermedia*:** Arnold, 1930:6 (new generic assignment, in checklist of Afrotropical Sphecidae).

ssp. hova Arnold

Liris sepulchralis hova Arnold, 1945:132, ♀, ♂. Syntypes: Madagascar: Behara, Bekily (MNH). – R. Bohart and Menke, 1976:247 (in checklist of world Sphecidae); Pulawski, 2003b:797 (in checklist of Malagasy Sphecidae); Madl, 2014a:973 (in catalog of Ampulicidae, Crabronidae, and Sphecidae of Madagascar, with synonymy and locality records). – **As *Motes sepulchralis hova*:** Leclercq, 1960a:97 (new generic assignment, Madagascar), 1961d:116 (Madagascar).

258. serenus (R. Turner)

Notogonia serena R. Turner, 1908:478, ♀. Holotype or syntypes: ♀, Australia: Queensland: Mackay (BMNH). – R. Turner, 1916e:283 (in revision of Australian *Liris*). – **As *Liris serena*:** R. Bohart and Menke, 1976:247 (new generic assignment, in checklist of world Sphecidae); Cardale, 1985:236 (in catalog of Australian Sphecidae).

259. sericosoma (R. Turner)

Notogonia sericosoma R. Turner, 1913:752, ♀. Holotype: Kenya: near Wangi (BMNH). – **As *Notogonidea sericosoma*:** Arnold, 1923b:237 (new generic assignment, original description copied), 1930:6 (in checklist of Afrotropical Sphecidae). – **As *Liris sericosoma*:** R. Bohart and Menke, 1976:247 (new generic assignment, in checklist of world Sphecidae); Dollfuss, 1993a:693 (Central African Republic: Kembe; as *sericosomus*).

260. seychellensis (Cameron)

Notogonia seychellensis Cameron, 1907e:77, ♀, ♂. Syntypes: Seychelles Islands: Mahé (BMNH). – R. Turner, 1911b:370 (Seychelles Islands). – **As *Liris seychellensis*:** R. Bohart and Menke, 1976:247 (new generic assignment, in checklist of world Sphecidae); Madl, Matyot, and Schödl, 1996:832 (Seychelles Islands); Madl, 2014a:973 (in catalog of Ampulicidae, Crabronidae, and Sphecidae of Madagascar, with synonymy and locality records).

Notogonia rufofemorata Cameron, 1907e:78, ♂ (as *rufo-femorata*, incorrect original hyphenation). Syntypes: ♂, Seychelles Islands: Mahé (BMNH). Synonymized with *Notogonia seychellensis* by R. Turner, 1911b:370.

261. *silvicola* (F. Williams)

Notogonidea silvicola F. Williams, 1928:76, ♀, ♂ (♂ = *Liris makiling* Tsuneki). Holotype: ♀, Philippines: Los Baños (Bishop Mus.). – **As *Motes silvicola***: Baltazar, 1966:333 (new generic assignment, in catalog of Hymenoptera of Philippines, new generic assignment). – **As *Liris silvicola***: R. Bohart and Menke, 1976:247 (new generic assignment, in checklist of world Sphecidae); Tsuneki, 1976b:60 (Philippines), 72 (insertion into key to *Liris* of Williams, 1928a), 1983a:26 (Philippines; description of true ♂; taxonomic comments), 46, 48 (in key to *Liris* of Philippines), 105 (study of holotype).

Notogonidea mindanaoensis F. Williams, 1928:79, ♀, ♂, secondary homonym of *Liris mindanaoensis* F. Williams, 1928:83. Holotype: ♂, Philippines: Mindanao: Lake Lanao (Bishop Mus.). Synonymized with *Liris silvicola* by Tsuneki, 1983a:26. – **As *Motes mindanaoensis***: Baltazar, 1966:332 (new generic assignment, in catalog of Hymenoptera of Philippines, new generic assignment).

Liris mindanao Menke in R. Bohart and Menke, 1976:246. Substitute name for *Liris mindanaoensis* (F. Williams, 1928:79).

262. *simbang* Tsuneki

Liris simbang Tsuneki, 1983c:24, ♂ (subgenus *Leptolarra*). Holotype: ♂, New Guinea: Huon Golf: Simbang (TMB). – Tsuneki, 1983c:30 (in key to *Liris* of Papua New Guinea).

263. *similis* Krombein and Shanks Gingras

Liris similis Krombein and Shanks Gingras, 1984:63, ♂. Holotype: ♂, Mexico: Morelos: Cuernavaca (USNM). – Amarante, 2002:41 (in catalog of Neotropical Crabronidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:664 (in checklist of Mexican Sphecidae).

264. *simulatrix* (Arnold)

Notogonidea simulatrix Arnold, 1923b:246, ♀. Holotype: ♀, Zimbabwe: Springvale (SAM). – Arnold, 1930:6 (in checklist of Afrotropical Sphecidae). – **As *Motes simulatrix***: Arnold, 1940:140 (new generic assignment, description of ♂). – **As *Liris simulatrix***: Guiglia, 1932:127 (new generic assignment, Eritrea: Cheren, determination tentative); Bohart and Menke, 1976:247 (in checklist of world Sphecidae).

265. *smithi* Tsuneki

Liris smithi Tsuneki, 1976b:69, ♀. Holotype: ♀, Philippines: Tawi Tawi: Tarawakan (ZMUC). – Tsuneki, 1976b:73 (insertion into key to *Liris* of Williams, 1928a), 1983a:46 (in key to *Liris* of Philippines).

266. *solomonis* Tsuneki

Liris solomonis Tsuneki, 1982a:15, ♀. Holotype: ♀, Solomon Islands: island of Rennel: Niupani (ZMUC). – Tsuneki, 1982a:12 (in key to *Liris* of South Pacific islands).

267. *solstitialis* (F. Smith)

Larrada solstitialis F. Smith, 1856:283, ♀. Syntypes: ♀, South Africa: KwaZulu-Natal: Port Natal, now Durban (BMNH). – **As *Larra solstitialis***: Kohl, 1885a:247 (new generic assignment, in checklist of world *Larra*); Dalla Torre, 1987:674 (in catalog of world Hymenoptera). – **As *Notogonidea solstitialis***: Arnold, 1923b:238 (new generic assignment, in revision of southern African Sphecidae), 1930:6 (in checklist of Afrotropical Sphecidae); Schouteden, 1930:92 (Zaire); Arnold, 1933a:352 (Ethiopia: Muger Valley). – **As *Motes solstitialis***: Leclercq, 1960a:97 (new generic assignment, Madagascar), 1961d:112 (Madagascar). – **As *Liris solstitialis***: Arnold, 1945:121 (new generic assignment, in revision of Madagascar Sphecidae), 1951:159 (Ghana: Aburi, Accra); de Beaumont, 1961f:228 (in revision of Mediterranean *Liris*), 1967b:508 (South Africa: Natal); I. Robertson, 1969:480 (Tanzania: Urambo); R. Bohart and Menke, 1976:247 (in checklist of world Sphecidae); Pulawski, 2003b:797 (in checklist of Malagasy Sphecidae); T. Li, Cai, and Q. Li, 2009a:117, 118 (in key to Palearctic *Liris*); Madl, 2014a:973 (in catalog of Ampulicidae, Crabronidae, and Sphecidae of Madagascar, with synonymy and locality records).

Notogonia femoralis de Saussure, 1887:17, ♀. Lectotype: ♀, Madagascar: no specific locality (MHNG), designated by Leclercq, 1961d:112. Synonymized with *Motes solstitialis* by Leclercq, 1961d:112. – de Saussure, 1892:502 (Madagascar, redescription). – **As *Larra femoralis***: Kohl in Dalla Torre, 1897:667 (new generic assignment, in catalog of world Hymenoptera).

Notogonia cnemophila Cameron, 1908a:288, ♀. Holotype or syntypes: ♀, Tanzania: Mount Kilimandjaro: Kibonoto (NRS). Synonymized with *Notogonidea solstitialis* by Arnold, 1923b:238.

ssp. *anubis* de Beaumont

As *Leptolarra* sp. aff. *solstitialis*: de Beaumont, 1940a:17 (Egypt), corrected to *Liris solstitialis tibialis* by de Beaumont, 1961f:228.

Liris solstitialis tibialis de Beaumont, 1961f:228, ♀, ♂, junior secondary homonym of *Liris tibialis* (Arnold, 1923). Holotype: ♀, Egypt: Helwan (Lausanne). – de Beaumont, Bytinski-Salz and Pulawski, 1973:4 (Israel).

Liris solstitialis anubis de Beaumont, 1970b:38. Substitute name for *Liris tibialis* de Beaumont, 1961. – Roche, 2007a:65 (in checklist of Egyptian Crabronidae), 2007b:4 (in checklist of Egyptian Ampulicidae, Sphecidae, and Crabronidae); Schmid-Egger, 2014:579 (first record from Arabian Peninsula and United Arab Emirates: Al-Ajban), 580 (color photographs of female); Gadallah, 2020b:39 (in list of aculeate wasps of Arabian Peninsula).

268. *sophiae* Evans

Liris sophiae Evans, 1972b:13, ♀, ♂. Holotype: ♂, Caribbeans: island of Dominica: Fond Sophie (USNM). – R. Bohart and Menke, 1976:247 (in checklist of world Sphecidae); Amarante, 2002:41 (in catalog of Neotropical Crabronidae).

269. *spathulifer* (R. Turner)

Notogonia spathulifera R. Turner, 1916e:282, ♀. Syntypes: ♀, Australia: Northern Territory: Darwin and island of Bathurst (BMNH). – As *Liris spathulifera*: R. Bohart and Menke, 1976:247 (new generic assignment, in checklist of world Sphecidae); Cardale, 1985:236 (in catalog of Australian Sphecidae); Naumann, 1993:185 (Australia: Queensland: Heathlands area in Cape York).

270. *splendens* (Ashmead)

Motes splendens Ashmead, 1900:226, ♀, ♂. Syntypes: Lesser Antilles: Saint Vincent (BMNH). – Ashmead, 1899d:249 (in checklist of North American Crabronidae). – As *Liris splendens*: R. Bohart and Menke, 1976:247 (new generic assignment, in checklist of world Sphecidae); Amarante, 2002:41 (in catalog of Neotropical Crabronidae).

271. *strenuus* (Cameron)

Notogonia strenua Cameron, 1905c:228, ♀. Holotype or syntypes: ♀, India: Assam: Khasia Hills (OXUM). – Ramakrishna Aiyar, 1916:552 (in catalog of Indian aculeates described after Bingham, 1897). – As *Liris strenua*: R. Bohart and Menke, 1976:248 (new generic assignment, in checklist of world Sphecidae); Jonathan, Ray, and Kundu, 2000:194 (India: previously recorded from Meghalaya: East Khasi Hills).

272. *striaticollis* (Cameron)

Notogonia striaticollis Cameron, 1903b:121, ♀. Holotype or syntypes: ♀, India: West Bengal: Barrackpore 20 km north of Calcutta (OXUM). – Rothney, 1903:104 (India: West Bengal: Barrackpore); Ramakrishna Aiyar, 1916:552 (in catalog of Indian aculeates described after Bingham, 1897). – As *Liris striaticollis*: R. Bohart and Menke, 1976:248 (new generic assignment, in checklist of world Sphecidae).

273. *subfasciatus* (Walker)

Larrada subfasciata Walker, 1871:21, ♀. Holotype or syntypes: ♀, Egypt: Cairo (BMNH). – Innes Bey, 1912:111 (specimens recorded by Walker, 1871, now destroyed by dermestids, were collected on island of Dahleeh). – As *Larra subfasciata*: Kohl, 1885a:247 (new generic assignment, in checklist of world *Larra*); Dalla Torre, 1987:674 (in catalog of world Hymenoptera). – As *Notogonia subfasciata*: Bingham, 1902:209 (new generic assignment, South Africa, Malawi); Richards, 1928:361 (as synonym of *Notogonia memnonia*). – As *Liris subfasciata*: de Beaumont, 1961f:225 (new generic assignment, in revision of Mediterranean *Liris*); Pulawski, 1967c:388 (Sudan: Wadi Halfa); de Beaumont, Bytinski-Salz and Pulawski, 1973:4 (Israel); R. Bohart and Menke, 1976:248 (in checklist of world Sphecidae); Kazenas, 1978b:103 (in key to Sphecidae of Kazakhstan and Central Asia); Guichard, 1980:226 (Oman). – As *Liris subfasciatus*: Roche, 2007a:66 (in checklist of Egyptian Crabronidae), 2007b:4 (in checklist of Egyptian Ampulicidae, Sphecidae, and Crabronidae); T. Li, Cai, and Q. Li,

2009a:118 (in key to Palearctic *Liris*); Schmid-Egger, 2011b:546 (first record from United Arab Emirates: Al-Ajban, Sharjah Desert Park), 551 (color photograph of male), 2014:579 (United Arab Emirates); Fallahzadeh, Ljubomirov, Tavakoli Roodi, and Saghaei, 2018:628 (Iran: Hormozgan: Band e Molla at 27°25'N 57°09'E and Sar Kahn at 27°24'N 57°07'E); Gadallah, 2020b:39 (in list of aculeate wasps of Arabian Peninsula).

Notogonidea egregia Arnold, 1929c:395, ♂. Holotype: ♂, Zaire: Coquilhatville, now Mbandaka (MRAC). Synonymized with *Liris subfasciata* by de Beaumont, 1961f:225. – Arnold, 1930:6 (new generic assignment, in checklist of Afrotropical Sphecidae), 1933a:353 (Ethiopia: Muger Valley); Schouteden, 1930:91 (Zaire: Bamanian given as type locality). – **As *Liris egregia***: Arnold, 1951:160 (new generic assignment, Ethiopia: Addis Ababa, Dilla).

As Leptolarra memnonia: de Beaumont, 1940a:17, corrected to *Liris subfasciata* by de Beaumont, 1961f:225.

274. *subpetiolatus* (F. Smith)

Larrada subpetiolata F. Smith, 1856:290, ♀. Holotype or syntypes: ♀, Brazil: Amazonas: Villa Nova, now Parintins (BMNH). – **As *Larra subpetiolata***: Kohl, 1885a:247 (new generic assignment, in checklist of world *Larra*); Dalla Torre, 1987:674 (in catalog of world Hymenoptera). – **As *Liris subpetiolata***: R. Bohart and Menke, 1976:248 (new generic assignment, in checklist of world Sphecidae). – **As *Liris subpetiolatus***: Amarante, 2002:41 (in catalog of Neotropical Crabronidae).

275. *subtessellatus* (F. Smith)

Larrada subtessellata F. Smith, 1856:277, ♀. Syntypes: ♀, India, Sumatra, Java (BMNH). – Gribodo, 1884d:361 (Burma: Minhla). – F. Smith, 1871a:364 (in catalog of Oriental Aculeata). – **As *Larra subtessellata***: Kohl, 1885a:248 (new generic assignment, in checklist of world *Larra*); Dalla Torre, 1987:674 (in catalog of world Hymenoptera). – **As *Notogonia subtessellata***: Cameron, 1889c:130 (new generic assignment; India: Barrackpore, Pune), Bingham, 1896a:442 (Sri Lanka: Pundaluoya), 1897:202 (redescription); Rothney, 1903:104 (India: West Bengal: Barrackpore); Cameron, 1905k:64 (Java); R. Brown, 1906:687 (in catalog of Philippine Hymenoptera); Paiva, 1907:15 (India: West Bengal: Siliguri); Maxwell-Lefroy, 1909:201 (India: Pusa, nesting habits); Dutt, 1912:198 (hunting habits); Ramakrishna Aiyar, 1916:553 (reference to Lefroy, 1909); Morice, 1921:824 (Iraq: Amara); Maidl, 1925a:382 (Indonesia: Sumatra); Dover, 1926:234 (China: Hong Kong); Richards, 1928:360 (in revision of Mediterranean species); Gussakovskij, 1933b:277 (Iran); Haupt, 1933:4 (Philippines: Palawan: Backuit); Pagden, 1934a:464 (Malay Peninsula: courtship behavior); Giner Marí, 1945c:854 (India: Maharashtra: Bandra); Derwesh, 1965:70 (Iraq: no specific locality); Al-Ali, 1977:100 (Iraq, Baghdad); van Vondel, 1995:29 (specimens from Sumatra in Natuurmuseum Rotterdam). – **As *Motes subtessellata***: Yasumatsu, 1940b:97 (new generic assignment, Botel Tobago Islands); Krombein, 1949b:382 (in key to Sphecidae of Micronesia, as *subtessellatus*), 394 (Marshall Islands); Yoshimoto, 1960:331 (Hawaiian Islands, as *subtessellatus*); Iwata and Yoshikawa, 1961:399 (Thailand); Baltazar, 1966:333 (in catalog of Hymenoptera of Philippines). – **As *Notogonidea subtessellata***: F. Williams, 1927:438 (new generic assignment, introduced to Honolulu as a few cocoons in 1921), 1928a:76 (Philippines, in revision of *Liris* of Philippines), 100 (introduced from Philippines into Oahu, Hawaii), 1936b:124 (Solomon Islands), 1947:318 and 333 (Fiji); Gibson-Hill, 1950:160 (Cocos Islands); Fullaway, 1957:279 (in checklist of Hymenoptera of Fiji). – **As *Liris subtessellata***: de Beaumont, 1961e:4 (new generic assignment, Iraq), 1961f:229 (in revision of Mediterranean *Liris*); Tsuneki, 1967b:11, 15 (in key to Larrinae of Taiwan); de Beaumont, 1970a:399 (Afghanistan); Tsuneki, 1974b:602, 1976b:59 (Philippines); R. Bohart and Menke, 1976:248 (in checklist of world Sphecidae); Tsuneki, 1976b:59 (Philippines), 72 (insertion into key to *Liris* of Williams, 1928a); Kazenas, 1978b:103, 104 (in key to Sphecidae of Kazakhstan and Central Asia); Sk. Yamane, 1983:85 (Indonesia: Krakatau Islands); Pu, 1986:8 (China); S. Gupta, 1995:86 (India: Uttar Pradesh); Wu, Zhou, Q. Li, and Yang, 2003:813 (China: Fujian Province); Haneda, Nozaka, Tano, Kurokawa, H. Murota, and T. Murota, 2007:53 (Japan: Kagoshima Prefecture: Amami Oshima Islands, as *subtessellata subtessellata*); Ohkusa, 2007:34 (Japan: central Honshu: Aichi Prefecture, as *subtessellata subtessellata*); Murota and Kurokawa, 2009:14 (Japan: Ryukyu Archipelago: Amami Oshima Islands, as *subtessellata subtessellata*). – **As *Liris subtessellatus***: Tsuneki, 1983a:46 (in key to *Liris* of Philippines), 1983b:1 (study of holotype), 1983c:30 (in key to *Liris* of Papua New Guinea); Takahashi 1993:3 (Japan: island of Hachijo-Jima); Begum, Khan, and Bose, 1995:176 (Bangladesh: Dhaka University Campus); Wu and Zhou, 1996a:79 (in Economic Insect Fauna of China); Yamane, Ikudome, and Terayama, 1999:513 (in Identification Guide to Crabronidae of Nansei = Ryukyu

Islands, Japan); Haneda and Tano, 2003:11 (Japan: Nagasaki Prefecture: Tsushima, as *subtesselatus subtessellatus*); Tano, Kurokawa, Murota, and Nozaka, 2003:31 (Japan: Nagasaki Prefecture: Tsushima, as *subtessellatus subtessellatus*); Li and He, 2004:1099 (in hymenopterous fauna of Zhejiang Province, China); Ebrahimi, 2005:125 (in key to selected Iranian Sphecidae); Haneda, Nozaka, Tano, Kurokawa, and Murota, 2005:46 (Japan: Gifu Prefecture, as *subtessellatus subtessellatus*), 2006b:47 (Japan: Nagasaki Prefecture: Tsushima, as *subtessellatus subtessellatus*); Hua, 2006:281 (in list of Chinese insects, geographic distribution); T. Li, Cai, and Q. Li, 2007:421, 423 (in key to *Liris* of China), 2009:117, 118, 119 (in key to Palearctic *Liris*); Haneda, 2011:45 (Philippines: Palawan); N. Yamamoto, 2011:12 (Japan: Kyūshū: mainland Nagasaki Prefecture, as *subtessellatus subtessellatus*); Dunford, Turbyville, and Leavengood, 2014:10 (listed as medically important in Afghanistan); Ebrahimi, 2014:38 (Iran: Kermān, Markazi, and Tehrān provinces); J.-K. Kim, 2014:436 (in catalog of Sphecidae *sensu lato* of Korean Peninsula), 451 (recorded from Korea but not occurring there); Atbaei, Fallahzadeh, and Ljubomirov, 2015:14 (Iran: Fars Province, as *subtessellatus subtessellatus*); Augul, 2015:281 (in revision of *Liris* of Iraq); Jahantigh, Rakhshani, Mokhtari, and Ramroodi, 2017:66 (Iran: known from Fars, Kerman, Markazi, Sistan-o Baluchestan, and Tehran provinces); Fallahzadeh, Ljubomirov, Tavakoli Roodi, and Saghaei, 2018:628 (Iran: Hormozgan: Band e Molla at 27°25'N 57°09'E, as *Liris subtessellatus subtessellatus*); Ghaderipour, Khayrandish, Madjdzadeh, Ebrahimi, and Schmid-Egger, 2020:119 (Iran: Kerman); Yoshida, Inahata, and Murao, 2020:63 (Japan: Amami Islands); Pham and Antropov, 2021:317, 318 (in key to *Liris* of Vietnam), 320 (first record from Vietnam: Hanoi, Thai Binh, Son La, Thai Nguyen, Vinh Phuc, and Hoa Binh provinces); Mawadda and Girish Kumar, 2023:114 (in checklist of Crabroninae of Northern India); Barthélémy and Guénard, 2025:22 (China: Hong Kong, as *subtesselatus*). **Nec following authors** (= *Liris difficilis*): Tsuneki, 1963c:9, 1964l:62, 1966g:2, 1967b:32, 1967i:389; Haneda, 1971b:29; Tsuneki, 1971h:6; Haneda, 1972a:3; Tano, 1972:23; Murota, 1973b:118; Tsuneki, 1977j:268, 1982a:19, 22, 1982g:58, 1982f:47 and 1983a:18, 46, 48.

Larrada exilipes F. Smith, 1856:278, ♂. Syntypes: ♂, Northern India (possibly Pakistan): no specific locality (BMNH). Synonymized with *Liris subtessellata* by Tsuneki, 1983b:2 (but already listed as a synonym of *subtessellatus* in R. Bohart and Menke, 1976:248). – F. Smith, 1858a:102 (Borneo: Sarawak), 1858b:16 (Indonesia: Sulawesi), 1863b:135 (known from India and Borneo), 1871a:364 (in catalog of Oriental Aculeata). – **As *Larra exilipes***: Kohl, 1885a:243 (new generic assignment, in checklist of world *Larra*); Cameron, 1889c:125 (in list of Oriental Sphecidae); Dalla Torre, 1897:666 (in catalog of world Hymenoptera). – **As *Notogonia exilipes***: Cameron, 1890:314 (new generic assignment).

Larrada docilis F. Smith, 1873a:192, ♀, ♂ (♂ = *Larra carbonaria erebus*). Lectotype: ♀, Japan: Hyogo: Hakodate (BMNH), designated by Pulawski, 1975a:319. Synonymized with *Liris subtessellatus* by Tsuneki, 1983b:2. – **As *Larra docilis***: Kohl, 1885a:243 (new generic assignment, in checklist of world *Larra*); Dalla Torre, 1897:666 (in catalog of world Hymenoptera). – **As *Notogonia docilis***: Cameron, 1890c:314 (new generic assignment). – **As *Motes docilis***: Iwata, 1955:28 (new generic assignment; egg size, number of oocytes), 1963b:197 (Japan: prey record). – **As *Liris subtessellata docilis***: Tano, 1964:38 (new generic assignment, new status, Japan: Kyushu: island of Yakushima); Tsuneki, 1964h:221 (synonymy), 1964l:62 (in key to Larrinae of Japan and Korea). – **As *Liris docilis***: Tsuneki, 1966g:1 (Taiwan, Ryukyus), 1967b:11, 16 (in key to Larrinae of Taiwan), 33 (Taiwan); Haneda, 1968a:44 (Japan); Nambu, 1968b:21 (Japan: Saitama Prefecture); Nishino, 1968:25 (Japan); Tsuneki, 1969b:12 (nesting habits), 1969e:25 (Japan: specimens in Osaka Museum of Natural History), 1967i:389 (Taiwan); Haneda, 1971b:29 (Taiwan); Tsuneki, 1971h:7 (Taiwan); Yamada, 1971:35 (Japan: Aichi Prefecture); Haneda, 1972a:4 (Taiwan); Nambu, 1972e:89 (Japan: Saitama Prefecture); Tano, 1972:23 (Japan: Ryukyu Islands); Haneda, 1973:30 (Japan: Bonin Islands: Chichijima Islands); Murota, 1973a:102 (Ryukyu Islands: Amami-Oshima Islands), 1973b:118 (Taiwan); Nambu, 1973a:150 (Japan: Saitama Prefecture), 1975b:62 (Japan: Saitama Prefecture); R. Bohart and Menke, 1976:245 (in checklist of world Sphecidae); Tsuneki, 1976b:73 (insertion into key to *Liris* of Williams, 1928a), 1977c:22 (Taiwan), 1977j:268 (Taiwan), 1982a:19 (in key to *Liris* of South Pacific islands), 22 (Papua New Guinea: Bismarck Archipelago), 1982g:58 (known from the Ryukyu archipelago), 1983a:18 (legs black in Japanese and Formosan specimens, black or red in Philippine specimens; diagnostic characters discussed), 46, 48 (in key to *Liris* of Philippines; Wu and Zhou, 1996a:78 (in revision in Economic Insect Fauna of China); Porter, Stange, and Wang, 1999:8 (in checklist of Sphecidae of Taiwan); Ohl and Linde, 2003:150 (number of ovarioles); Wu, Zhou, Q. Li, and Yang, 2003:813 (China: Fujian Province);.

Larrada tisiphone F. Smith, 1873a:192, ♀ (as *Tisiphone*, incorrect original capitalization), junior primary homonym of *Larrada tisiphone* F. Smith, 1857. Lectotype: ♀, Japan: Nagasaki (BMNH), designated by Pulawski, 1975a:319. Synonymized with *Liris docilis* by Tsuneki, 1964h:221, synonymy confirmed by Pulawski, 1975a:319. – **As *Larra tisiphone***: Kohl, 1885a:248 (new generic assignment, in checklist of world *Larra*), 260 (original description copied). – **As *Motes tisiphone***: Tsuneki, 1962a:5 (new generic assignment, Japan: Ryukyu Islands: island of Amami-Oshima), corrected to *Liris subtessellata docilis* by Tsuneki, 1964h:221.

Larra tisiphonoides Dalla Torre, 1897:675 (as *Tisiphonoides*, incorrect original capitalization). Substitute name for *Larrada tisiphone* F. Smith, 1873.

Notogonidea manilensis Rohwer, 1910c:659, ♂. Holotype: ♂, Philippines: Luzon: Manila (USNM). Synonymized with *Liris docilis* by R. Bohart and Menke, 1976:245.

Notogonia insularis Cameron, 1913b:81, ♂, junior secondary homonym of *Liris insularis* (de Saussure, 1867). Holotype or syntypes: ♂, Indonesia: Western Papua (New Guinea): Moluccas: island of Saonek near island of Waigeo (ZMA). Synonymized with *Liris subtessellata* by van der Vecht in R. Bohart and Menke, 1976:248.

Notogonidea luzonensis Rohwer, 1919:9, ♀. Holotype: ♀, Philippines: Luzon: Los Baños (USNM). Synonymized with *Notogonidea subtessellata* by F. Williams, 1927:438. – F. Williams, 1919d:137 (Philippines: Luzon: Los Baños: nesting habits).

Liris vortex Tsuneki, 1966g:7, ♂. Holotype: ♂, Taiwan: Nantou Prefecture: Nanshanchi (Kyushu Univ.). Synonymized with *Liris docilis* by Tsuneki, 1967b:34.

ssp. *banatamus* Tsuneki

Liris subtessellatus banatamus Tsuneki, 1982a:22, ♂ (as *subtessellata banatama*, incorrect original termination). Holotype: ♂, Papua New Guinea: Bismarck Archipelago: island of Lavongai: Banatam (ZMUC). – Tsuneki, 1982a:19 (in key to *Liris* of South Pacific islands).

ssp. *ogasawarae* Tsuneki

Liris subtessellatus ogasawarae Tsuneki, 1984a:3, ♀, ♂. Holotype: ♀, Ogasawara (= Bonin) Islands: Chichidzima: Kohshinzuka (originally K. Tsuneki coll., now Hyogo Mus.). – Tano, 1994a:5 (holotype in K. Tsuneki collection); Hashimoto and Nakaniishi, 1997:17 (holotype transferred to Hyogo Mus.); Takahashi and Shimizu, 2001:13 (Japan: Ogasawara Islands: Chichi-Jima and Haha-Jima); Takahashi, Shimizu, and Nambu, 2009:3 (Japan: Ogasawara Islands: Chichi-Jima and Haha-Jima); Takahashi, 2010:19 (Japan: in list of Hymenoptera of Ogasawara = Bonin islands).

276. *sulcifrons* (Cameron)

Notogonia sulcifrons Cameron, 1905c:228, ♀. Holotype or syntypes: ♀, India: Assam: Khasia Hills (OXUM). – Ramakrishna Aiyar, 1916:552 (in catalog of Indian aculeates described after Bingham, 1897). – **As *Liris sulcifrons***: Bohart and Menke, 1976:248 (new generic assignment, in checklist of world Sphecidae); Jonathan, Ray, and Kundu, 2000:194 (India: previously recorded from Meghalaya: East Khasi Hills).

277. *sumatrensis* (Maidl)

Notogonidea sumatrensis Maidl, 1927:410, ♂. Holotype: ♂, Sumatra: Wai Lima: Lampongs (NHMW). – **As *Liris sumatrensis***: R. Bohart and Menke, 1976:248 (new generic assignment, in checklist of world Sphecidae).

278. *surusumi* Tsuneki

Liris surusumi Tsuneki, 1966g:4, ♀. Holotype: ♀, Ryukyu Islands: island of Ishigaki: Yonebaru (Bishop Mus.). – Tsuneki, 1967b:10, 14 (in key to Larrinae of Taiwan), 28 (Taiwan), 1967i:389 (Taiwan); Murota, 1973b:118 (Taiwan); R. Bohart and Menke, 1976:248 (in checklist of world Sphecidae); Tsuneki, 1977j:268 (Taiwan: Taihorinsho), 1982g:59 (known from the Ryukyu archipelago); Zhou and Wu, 1993a:671 (China: Wuling Mountains); Wu and Zhou, 1996a:77 (in revision in Economic Insect Fauna of China); Porter, Stange, and Wang, 1999:8 (in checklist of Sphecidae of Taiwan); Yamane, Ikudome, and Terayama, 1999:514 (in Identification Guide to Crabronidae of Nansei = Ryukyu Islands, Japan); Li and He, 2004:1099 (China: in hymenopterous fauna of Zhejiang Province); Hua, 2006:281 (in list of Chinese insects, geographic distribution); T. Li, Cai, and Q. Li, 2007:420, 422 (in key to *Liris* of China), 2009a:118, 119 (in key to Palearctic *Liris*).

Liris shirozui Tsuneki, 1966g:5, ♂. Holotype: ♂, Taiwan: Nantou Prefecture: Sungkang (Kyushu Univ.). Synonymized with *Liris surusumi* by Tsuneki, 1967b:28.

279. *tachytoides* Tsuneki

Liris tachytoides Tsuneki, 1963c:10, ♀. Holotype: Thailand: Bangkok (Sasayama Univ.). – R. Bohart and Menke, 1976:248 (in checklist of world Sphecidae).

280. *tanoi* Tsuneki

Liris tanoi Tsuneki, 1974b:603, ♂. Holotype: ♂, Thailand: Chiang Mai (T. Tano coll., Fukui). – R. Bohart and Menke, 1976:629 (in checklist of world Sphecidae).

281. *tegularis* (Cameron)

Notogonia tegularis Cameron, 1902a:98, ♂. Holotype or syntypes: ♂, East Malaysia: Sarawak: Kuching (BMNH). – Ramakrishna Aiyar, 1916:552 (in catalog of Indian aculeates described after Bingham, 1897). – **As *Liris tegularis***: R. Bohart and Menke, 1976:248 (new generic assignment, in checklist of world Sphecidae).

282. *tegularis* (Cameron) (preoccupied)

Notogonia tegularis Cameron, 1905c:226, ♀, junior primary homonym of *Notogonia tegularis* Cameron, 1902. Holotype or syntypes: ♀, India: Assam: Khasia Hills (OXUM). – **As *Liris tegularis***: R. Bohart and Menke, 1976:248 (new generic assignment, in checklist of world Sphecidae); Jonathan, Ray, and Kundu, 2000:195 (India: previously recorded from Meghalaya: East Khasi Hills).

283. *tenebrosus* (F. Smith)

Larrada tenebrosa F. Smith, 1873b:56, ♀. Holotype or syntypes: ♀, Brazil: Amazonas: Ega, now Tefé (BMNH). – **As *Larra tenebrosa***: Kohl, 1885a:248 (new generic assignment, in checklist of world *Larra*); Dalla Torre, 1987:674 (in catalog of world Hymenoptera). – **As *Liris tenebrosa***: R. Bohart and Menke, 1976:248 (new generic assignment, in checklist of world Sphecidae). – **As *Liris tenebrosus***: Hanson and Menke, 1995:639 (known from Panama); Amarante, 2002:41 (in catalog of Neotropical Crabronidae).

284. *testaceicornis* (Cameron)

Notogonia testaceicornis Cameron, 1905c:227, ♂. Holotype or syntypes: ♂, India: Assam: Khasia Hills (OXUM). Ramakrishna Aiyar, 1916:552 (in catalog of Indian aculeates described after Bingham, 1897). – **As *Liris testaceicornis***: R. Bohart and Menke, 1976:248 (new generic assignment, in checklist of world Sphecidae); Jonathan, Ray, and Kundu, 2000:195 (India: previously recorded from Meghalaya: East Khasi Hills).

285. *thaianus* Tsuneki

Notogonidea liroides F. Williams, 1928:72, ♀, ♂, junior secondary homonym of *Liris liroides* (R. Turner, 1913) = *Liris croesus* F. Smith. Holotype: ♀, Philippines: Luzon: Los Baños (Bishop Mus.). – **As *Motes liroides***: Baltazar, 1966:331 (new generic assignment, in catalog of Hymenoptera of Philippines). – **As *Liris liroides***: R. Bohart and Menke, 1976:248 (new generic assignment, in checklist of world Sphecidae, as tentative synonym of *Liris thaianus*).

Liris liroides thaianus Tsuneki, 1963c:9, ♀ (as *thaiana*, incorrect original termination). Holotype: ♀, Thailand: Me Fack (Sasayama Univ.). – **As *Liris thaiana***: R. Bohart and Menke, 1976:21 (new status, in checklist of world Sphecidae); Tsuneki, 1982a:21 (as new status).

Liris philippinicus Tsuneki, 1982a:21 (as *philippinica*, incorrect original termination). Substitute name for *Notogonidea liroides* F. Williams, 1928. Synonymized with *Liris liroides thaianus* by Tsuneki, 1983a:11, but used as valid name. – Tsuneki, 1983a:11 (Philippines; additional description), 45, 48 (in key to *Liris* of Philippines).

ssp. yalomensis Tsuneki

Liris philippinica yalomensis Tsuneki, 1982a:21, ♀, ♂. Holotype: ♀, Papua New Guinea: New Britain: Yalom (ZMUC). – Tsuneki, 1982a:18 (in key to *Liris* of South Pacific islands).

286. *thysanomerus* (Kohl)

Larra thysanomerus Kohl, 1894:302, ♂. Holotype or syntypes: ♂, Gabon: no specific locality (TMP). – Dalla Torre, 1897:674 (in catalog of world Hymenoptera). – **As *Notogonidea thysanomerus***: Arnold, 1923b:242 (new generic assignment, in revision of southern African Sphecidae), 1930:6 (in checklist of Afrotropical Sphecidae); Schouteden, 1930:92 (Zaire). – **As *Leptolarra thysanomerus***: Guiglia, 1939d:76 (new generic assignment, Ethiopia: Sidamo: Moyale and Neghelli, now Negele). – **As *Liris thysanomerus***: Arnold, 1951:159 (new generic assignment, Ghana: Aburi, Accra); R. Bohart and Menke, 1976:248 (in checklist of world Sphecidae); Dollfuss, 1993a:693 (Central African Republic: Kembe).

ssp. *usumbaraensis* (Cameron)

Notogonia usumbaraensis Cameron, 1908a:288, ♀. Holotype or syntypes: ♀, Tanzania: Tanga Region: Mombo (NRS). – **As *Notogonidea thysanomerus*, race *usumbarensis*** [sic]: Arnold, 1923b:240 (new generic assignment, new status, Zululand: Mfongosi); nec Arnold, 1929c:396 (= *Liris erythropyga*); Arnold, 1930:6 (in checklist of Afrotropical Sphecidae); Scott in Arnold 1933a:369 (Ethiopia: Harar, as *usambarensis*).

287. *tibicundus* Tsuneki

Liris tibicundus Tsuneki, 1982a:25, ♀ (as *tibicunda*, incorrect original termination). Holotype: ♀, Papua New Guinea: New Ireland: Lemkamin (ZMUC). – Tsuneki, 1982a:18 (in key to *Liris* of South Pacific islands).

288. *tinctipennis* (Cameron)

Notogonia tinctipennis Cameron, 1889a:56, sex not stated. Holotype or syntypes: Panama: Bugaba (BMNH). – **As *Larra tinctipennis***: Kohl in Dalla Torre, 1897:674 (new generic assignment, in catalog of world Hymenoptera). – **As *Liris tinctipennis***: R. Bohart and Menke, 1976:248 (new generic assignment, in checklist of world Sphecidae); Hanson and Menke, 1995:639 (known from Panama); Amarante, 2002:41 (in catalog of Neotropical Crabronidae).

289. *tisiphone* (F. Smith)

Larrada tisiphone F. Smith, 1858a:103, ♀ (as *Tisiphone*, incorrect original capitalization). Holotype or syntypes: ♀, Malaysia: Sarawak: no specific locality (OXUM). – F. Smith, 1863b:135 (known from Borneo). – **As *Larra tisiphone***: Kohl, 1885a:248 (new generic assignment, in checklist of world *Larra*); Cameron, 1889c:125 (in list of Oriental Sphecidae); Bingham, 1897:198 (redescription); Dalla Torre, 1897:675 (in catalog of world Hymenoptera); Rothney, 1903:103 (India: West Bengal: Barrackpore); Sen, 1931:22 (description of ♂). – **As *Notogonia tisiphone***: Cameron, 1890c:314 (new generic assignment); Bingham, 1896a:442 (Sri Lanka: Pundaluoya). – **As *Liris tisiphone***: R. Bohart and Menke, 1976:248 (new generic assignment, in checklist of world Sphecidae).

290. *townesi* (Krombein)

Motes sp.: Townes, 1946:50 (Palau), corrected to *Motes townesi* by Krombein, 1949b:396.

Motes townesi Krombein, 1949b:396, ♀, ♂. Holotype: ♀, Palau Islands: island of Arakabesan (USNM). – Krombein, 1949b:383 (in key to Sphecidae of Micronesia), 1950b:139 (additional Micronesian localities), 140 (illustration of male genitalia). – **As *Liris townesi***: R. Bohart and Menke, 1976:248 (new generic assignment, in checklist of world Sphecidae); Terayama, 2020:18 (Micronesia: Palau).

291. *transversus* Cheesman

Liris transversus Cheesman, 1955:82, ♀. Holotype: ♀, New Caledonia: Puébo (BMNH). – R. Bohart and Menke, 1976:248 (in checklist of world Sphecidae, as *transversa*); Callan, 1990a:22 (New Caledonia: no specific locality); Jennings, Krogmann, and Burwell, 2013:31 (in checklist of Hymenoptera of New Caledonia).

292. *trifasciatus* (F. Smith)

Larrada trifasciata F. Smith, 1856:290, ♀. Holotype or syntypes: ♀, Dominican Republic (BMNH). – Cresson, 1862:238 (in catalog of North American Hymenoptera), 1865a:138 (Cuba); Dewitz, 1881:203 (Puerto Rico). – **As *Larra trifasciata***: Patton, 1880b:388 (new generic assignment, in checklist of North American Larrinae); Kohl, 1885a:248 (in checklist of world *Larra*); Dalla Torre, 1897:675 (in catalog of world Hymenoptera); Ashmead, 1900:225 (Lesser Antilles: island of Saint Vin-

cent), 306 (in checklist of Caribbean Hymenoptera). – **As *Notogonia trifasciata***: Stadelmann, 1897:255 (new generic assignment). – **As *Motes trifasciatus***: Wolcott, 1951:842 (new generic assignment, in review of insects of Puerto Rico). – **As *Liris trifasciata***: Alayo Dalmau, 1973:178 (new generic assignment, in catalog of Cuban Hymenoptera), 1976:23 (in checklist of Cuban Sphecidae); R. Bohart and Menke, 1976:248 (in checklist of world Sphecidae). – **As *Liris trifasciatus***: Amarante, 2002:41 (in catalog of Neotropical Crabronidae); Genaro, 2006:56 (in checklist of Cuban Sphecidae and Crabronidae; also: Hispaniola, Puerto Rico, Saint Vincent); Perez-Gelabert, 2008:241 (in list of arthropods of island of Hispaniola); Molina Casas and E. Reyes, 2011:224, 225 (Cuba: locality records).

293. *tristis* (F. Smith)

Larrada tristis F. Smith, 1856:277, ♀. Holotype or syntypes: Indonesia: Borneo: no specific locality (BMNH). – F. Smith, 1871a:364 (in catalog of Oriental Aculeata). – **As *Larra tristis***: Kohl, 1885a:248 (new generic assignment, in checklist of world *Larra*); Cameron, 1889c:125 (in list of Oriental Sphecidae); Dalla Torre, 1897:675 (in catalog of world Hymenoptera). – **As *Notogonia tristis***: Cameron, 1890c:314 (new generic assignment); Bingham, 1897:204 (redescription, Burma); Cameron, 1905k:64 (Java); Paiva, 1907:15 (India: West Bengal: Siliguri); Matsumura and Uchida, 1926:42 (Okinawa). – **As *Liris tristis***: R. Bohart and Menke, 1976:248 (new generic assignment, in checklist of world Sphecidae); Pu, 1986:8 (China); Jonathan, Ray, and Kundu, 2000:195 (India: Meghalaya: East Garo Hills: Dainadubi and Darugiri; West Garo Hills: Tura); T. Li, Cai, and Q. Li, 2007:419 (in key to *Liris* of China), 2009a:118 (in key to Palearctic *Liris*); Mawadda and Girish Kumar, 2023:114 (in checklist of Crabroninae of Northern India).

294. *trivittatus* (W.F. Kirby)

Tachytes trivittatus W.F. Kirby, 1900:16, ♀, ♂. Syntypes: Yemen: island of Sokotra: Homhil (BMNH). – W.F. Kirby, 1903:242 (Socotra, redescription); Kohl, 1906a:212 (original description copied). – **As *Notogonia trivittata***: R. Turner, 1917d:43 (new generic assignment); Richards, 1928a:361 (in revision of Mediterranean species). – **As *Liris trivittata***: de Beaumont, 1961f:248 (new generic assignment, redescription, comments); R. Bohart and Menke, 1976:248 (in checklist of world Sphecidae). – **As *Liris trivittatus***: T. Li, Cai, and Q. Li, 2009a:118 (in key to Palearctic *Liris*); Gadallah, 2020b:39 (in list of aculeate wasps of Arabian Peninsula).

Notogonia expedita Kohl, 1906a:219, ♀, ♂. Syntypes: Yemen: island of Sokotra (NHMW). Synonymized with *Notogonia trivittata* by R. Turner, 1917d:43. – Dollfuss, 1989:10 (type material in NHMW)

295. *tropicalis* Arnold

Liris tropicalis Arnold, 1960b:470, ♀. Syntypes: Uganda: Mabira Forest; Liberia: Du River; Zaire: Coquilhatville, now Mbandaka (SAM). – R. Bohart and Menke, 1976:248 (in checklist of world Sphecidae).

296. *turneri* Tsuneki

Liris turneri Tsuneki, 1976b:70, ♀. Holotype: ♀, Philippines: Palawan: Pinigisan (ZMUC). – Tsuneki, 1976b:73 (insertion into key to *Liris* of Williams, 1928a), 1983a:45 (in key to *Liris* of Philippines).

297. *ubatama* Tsuneki

Liris ubatama Tsuneki, 1982a:14, ♀. Holotype: ♀, Papua New Guinea: New Ireland: Lemkamin (ZMUC). – Tsuneki, 1982a:11 (in key to *Liris* of South Pacific islands).

298. *uelensis* Benoit

Liris uelensis Benoit, 1951:129, ♀. Holotype: ♀, Zaire: Uelé River: Bambesa (MRAC). – R. Bohart and Menke, 1976:248 (in checklist of world Sphecidae).

299. *umbripennis* (Cameron)

Notogonia umbripennis Cameron, 1902a:97, ♀. Syntypes: ♀, East Malaysia: Sarawak: Kuching (BMNH). – **As *Liris umbripennis***: R. Bohart and Menke, 1976:248 (new generic assignment, in checklist of world Sphecidae).

300. *utopicus* (Leclercq)

Motes utopica Leclercq, 1961d:116, ♂. Holotype: ♂, Madagascar: Fianarantsoa Province: Infanadiana (MHNB). – **As *Liris utopica***: R. Bohart and Menke, 1976:248 (new generic assignment, in checklist of world Sphecidae); Madl, 2014a:974 (in catalog of Ampulicidae, Crabronidae, and Sphecidae of Madagascar, with synonymy and locality records). – **As *Liris utopicus***: Pulawski, 2003b:797 (in checklist of Malagasy Sphecidae).

301. *vagans* (Arnold)

Motes vagans Arnold, 1940:123, ♂. Holotype: ♂, Liberia: Gbanga (SAM). – **As *Liris vagans***: R. Bohart and Menke, 1976:248 (new generic assignment, in checklist of world Sphecidae).

302. *varipilosus* (Cameron)

Notogonia varipilosa Cameron, 1903b:122, ♀. Holotype or syntypes: ♀, India: West Bengal: Barrackpore 20 km north of Calcutta (OXUM). – Rothney, 1903:104 (India: West Bengal: Barrackpore); Ramakrishna Aiyar, 1916:552 (in catalog of Indian aculeates described after Bingham, 1897). – **As *Liris varipilosa***: R. Bohart and Menke, 1976:248 (new generic assignment, in checklist of world Sphecidae).

303. *vechti* Sudheendrakumar and Narendran

Liris vechti Sudheendrakumar and Narendran, 1985:51, ♀. Holotype: ♀, India: Kerala: Malabar: Thannur (Calicut University).

304. *vincenti* Krombein and Shanks Gingras

Liris vincenti Krombein and Shanks Gingras, 1984:67, ♂. Holotype: ♂, Mexico: Morelos: southern end of Cuernavaca (USNM). – Amarante, 2002:41 (in catalog of Neotropical Crabronidae, as *vicenti*); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:664 (in checklist of Mexican Sphecidae); Horta Vega, Pinson Domínguez, Barrientos Lozano, and Correa Sandoval, 2007: 46 (Mexico: Tamaulipas); Horta-Vega, Vanoye-Eligio, García-Gutiérrez, Coronado-Blanco, and Barrientos-Lozano, 2013:383 (Mexico: Tamaulipas: Ciudad Victoria: Cañón del Novillo); Vanoye-Eligio, Meléndez-Ramírez, Ayala, Navarro, and Delfín-González, 2014:638 (Mexico: Yucatán Peninsula); Vanoye-Eligio, Meléndez-Ramírez, Ayala, Navarro-Alberto, and Delfín-González, 2015:994 (Mexico: in list of Sphecidae *sensu lato* of Yucatán); Vanoye-Eligio, Meléndez-Ramírez, Ayala-Barajas, Delfin-González, and Horta-Vega, 2019:7 (Mexico: Yucatán).

305. *vigilans* (F. Smith)

Larrada vigilans F. Smith, 1856:279, ♀. Holotype or syntypes: ♀, China: no specific locality (BMNH). – Bingham, 1896a:442 (Sri Lanka: Pundaloya). – **As *Larra vigilans***: Kohl, 1885a:248 (new generic assignment, in checklist of world *Larra*); Dalla Torre, 1987:675 (in catalog of world Hymenoptera). – **As *Liris vigilans***: R. Bohart and Menke, 1976:248 (new generic assignment, in checklist of world Sphecidae); Hua, 2006:281 (in list of Chinese insects, geographic distribution); T. Li, Cai, and Q. Li, 2007:419 (in key to *Liris* of China).

306. *violaceipennis* (Cameron) (preoccupied)

Liris violaceipennis Cameron, 1904f:300, ♀, junior secondary homonym of *Liris violaceipennis* (Cameron, 1889). Holotype or syntypes: ♀, India: Assam: Khasia Hills; or Himachal Pradesh: Simla (OXUM). – Ramakrishna Aiyar, 1916:553 (in catalog of Indian aculeates described after Bingham, 1897). – **As *Liris violaceipennis***: R. Bohart and Menke, 1976:248 (new generic assignment, in checklist of world Sphecidae); Hanson and Menke, 1995:639 (known from Panama).

307. *vivax* (Cameron)

Notogonia vivax Cameron, 1905:226, ♀. Holotype or syntypes: ♀, India: Assam: Khasia Hills (OXUM). – Ramakrishna Aiyar, 1916:552 (in catalog of Indian aculeates described after Bingham, 1897); Giner Marí, 1945c:854 (India: Maharashtra: Bandra and Khandala; as *vivex*). – **As *Liris vivax***: R. Bohart and Menke, 1976:248 (new generic assignment, in checklist of world Sphecidae); Jonathan, Ray, and Kundu, 2000:196 (India: previously recorded from Meghalaya: East Khasi Hills).

308. voeltzkowii (Kohl)

Notogonia voeltzkowii Kohl, 1909:372, ♀. Holotype: ♀, Madagascar: Tuléar, now Toliara (ZMHU or SIF). – **As *Motes voeltzkowii***: Leclercq, 1960a:97 (new generic assignment, forgotten by Arnold, 1945). – **As *Liris voeltzkowii***: R. Bohart and Menke, 1976:248 (new generic assignment, in checklist of world Sphecidae); Pulawski, 2003b:797 (in checklist of Malagasy Sphecidae); Madl, 2014a:974 (in catalog of Ampulicidae, Crabronidae, and Sphecidae of Madagascar, with synonymy and locality records).

309. vollenhovius (Ritsema)

Larrada vollenhovia Ritsema, 1874:194, ♂ (as *Vollenhovia*, incorrect original capitalization). Lectotype: ♂, Guinea: no specific locality (RMNH), designated by W. Schulz, 1907:313 ("bei der Type"). – **As *Larra vollenhovia***: Kohl, 1885a:248 (new generic assignment, in checklist of world *Larra*); Dalla Torre, 1897:675 (in catalog of world Hymenoptera); Arnold, 1923b:225 (original description copied), 1930:6 (in checklist of Afrotropical Sphecidae). – **As *Notogonia vollenhovia***: W. Schulz, 1907:312 (new generic assignment). – **As *Notogonidea vollenhovia***: Arnold, 1932:2 (new generic assignment, Nigeria: Ikot Ikpene; description of ♀). – **As *Liris vollenhovia***: R. Bohart and Menke, 1976:248 (new generic assignment, in checklist of world Sphecidae).

Notogonia vollenhovenia Schulz, 1907:313, unjustified emendation of *Notogonia vollenhovia*.

310. wheeleri Arnold

Liris wheeleri Arnold, 1960b:472, ♂. Holotype: ♂, Zimbabwe: Turk Mine (SAM). – R. Bohart and Menke, 1976:248 (in checklist of world Sphecidae).

311. xanthopterus Arnold

Liris xanthopterus Arnold, 1945:121, ♀, ♂ (as *xanthoptera*, incorrect original termination). Syntypes: Madagascar: Bekily, Fort Dauphin (MNHN). – R. Bohart and Menke, 1976:248 (in checklist of world Sphecidae); Madl, 2014a:974 (in catalog of Ampulicidae, Crabronidae, and Sphecidae of Madagascar, with synonymy and locality records, as *xanthoptera xanthoptera*). – **As *Motes xanthoptera***: Leclercq, 1960a:98 (new generic assignment, Madagascar). – **As *Liris xanthopterus***: Pulawski, 2003b:797 (in checklist of Malagasy Sphecidae).

ssp. nyasae Arnold

Liris xanthoptera nyasae Arnold, 1947:155, ♀. Holotype: Malawi: Mlanje (SAM). – R. Bohart and Menke, 1976:248 (in checklist of world Sphecidae).

312. xavieri Tsuneki

Liris williamsi Tsuneki, 1976b:63, ♀, junior primary homonym of *Liris williamsi* Krombein, 1949, and junior secondary homonym of *Liris williamsi* (Rohwer, 1919). Holotype: ♀, Philippines: Palawan: Uring Uring (ZMUC). – Tsuneki, 1976b:73 (insertion into key to *Liris* of Williams, 1928a),

Liris xavieri Tsuneki, 1977i:4. Substitute name for *Liris williamsi* Tsuneki, 1976. – Tsuneki, 1983a:46 (in key to *Liris* of Philippines).

313. yanonis Tsuneki

Liris yanonis Tsuneki, 1983c:17, ♂ (subgenus *Leptolarra*). Holotype: ♂, New Guinea: Huon Golf, Satterberg (TMB). – Tsuneki, 1983c:30 (in key to *Liris* of Papua New Guinea).

sp.

Grossbeck, 1912b:325 (Mexico: Baja California Sur); Nurse, 1914:445 (India: Assam); von Schulthess, 1914:286 (Cameroon); Storey, 1916:110 (Egypt); Poulton, 1918:xxxvii (Brazil, prey); von Schulthess, 1935:305 (Australia: Northern Territory: Burnside, Marakai; Indonesia: Java: Buitenzorg, now Bogor); F. Williams, 1936b:125 (Solomon Islands); de Beaumont, 1953a:175 (Mauritania); Callan, 1954:24 (Venezuela: Paria Peninsula: Cristóbal Colón); Tsuneki, 1962a:5 (as *Motes* new sp. = *Liris deplanatus binghami*); Aguilar, 1966:95 (Peru: hills in vicinity of Lima, as *Motes* sp.); de Beaumont, 1967b:509 (South Africa); Haneda, 1971b:30 (Taiwan); Tano, 1972:24 (Japan: Ryukyu Islands); Alayo Dalmau, 1973:179 (in catalog of

Cuban Hymenoptera); Aguilar, 1976:59 (Peru: coastal hills, as *Motes* sp.); Alayo Dalmau, , 1976:23 (in checklist of Cuban Sphecidae); Lomholdt, 1980a:32 (Solomon Islands: island of Rennell); Gess, 1981:19 (South Africa: Hilton Farm 18 km west-northwest of Grahamstown; nesting in friable soils); Sielfeld, 1980b:73 (in checklist of Chilean Sphecidae); Rodgers and Homewood, 1982:233 (Tanzania: Usambara Mountains); Sk. Yamane, 1983:85 (Indonesia: Krakatau Islands); Simon Thomas, 1984:96 (Caribbeans: island of Saint Eustatius); Kingsley, Bailowitz, and Smith, 1987:19 (Arizona: Organ Pipe Cactus National Monument: Quitobaquito Springs area); Ch. Porter, 1987:45 (Chile: Tarapacá Region); Al-Houty, 1989:160 (Kuwait: Kwasat); Maes, 1989:100 (in catalog of Nicaraguan Sphecidae); Hilburn et. al., 1990:174 (Bermuda); Callan, 1991a:8 (Trinidad); Snelling, 1992:14 (Virgin Islands: islands of Guana and Mona); Amarante, 1993:19 (northeastern Brazil); Cambra, 1993:16 (Peru: Pakitza at 11°57'S, 71°17'W); Naumann, 1993:185, 185 (Australia: Queensland: Heathlands area in Cape York); Snelling, 1993:18 (British Virgin Islands: island of Guana), 19 (same: island of Mona); Quintero and Cambra, 1996 (*Timulla centroamericana* (Dalla Torre) parasitizes *Liris* sp. near *argenticauda* (Cameron)); Molina, 1999:2 (Peru: Lima; nest and prey); Cambra and Santos, 2000:51 (Panama: eight species found in Parque Nacional Coiba in Isla de Coiba, Pacific Ocean); Fernández, Garcés, Portuondo, Valdés and Expósito, 2001:1022 (collected on weed flowers in Botanical Garden of Santiago de Cuba); Fernández, Saríol, Vega, Ricardo, González, and Portuondo, 2002:46 (Cuba: Provincia Granma); Starr and Hook, 2003:19 (in catalog of Aculeata of Trinidad); Genaro, 2004a:19 (nesting habits); Portunodo and Fernández, 2004:135 (Cuba: Sierra Maestra and Nipe-Sagua-Baracoa mountains); Ruíz Cancino, Coronado Blanco, and Horta Vega, 2005:170 (Mexico: recorded from Tamaulipas State); Snelling, 2005:291 (British Virgin Islands: island of Guana, two species); Horta Vega, Pinson Domínguez, Barrientos Lozano, and Correa Sandoval, 2007: 45 (Mexico: Tamaulipas); Morato, Amarante, and Silveira, 2008:793 (Brazil: Acre: Parque Nacional da Serra do Divisor, five species); Haneda, 2011:45 (Philippines: Palawan: Baheli and Iwahig); Molina Casas and E. Reyes, 2011:225 (Cuba: locality records); Villemant, 2011:134 (Vanuatu: island of Espiritu Santo); Madl, 2014:997 (recorded from Mauritius by F. Williams, 1958:123); Silvestre, Demétrio, Trad, de Oliveira Lima, Auko, and de Souza, 2014:68 (Brazil: Mato Grosso do Sul: dry forests in Bodoquena Mountain Range and Brazilian Chaco; five species); Vanoye-Eligio, Meléndez-Ramírez, Ayala, Navarro-Alberto, and Delfín-González, 2015:994 (Mexico: in list of Sphecidae *sensu lato* of Yucatán); da Costa and Buschini, 2016:2 (Brazil: Natural Reserve Salto Morato at 25°10'S 48°18'W, nesting habits); Tan and Wahab, 2017:452, 453 (a *Liris*, probably *L. aurulenta*, paralyzing a gryllid nymph, with photograph); Trad and Silvestre, 2017:5 (Brazil: Mato Grosso do Sul, five species); Somavilla, Bartolomay, and Soares, 2019:2 (specimens parasitized by fungus *Ophiocordyceps humbertii* (C.P. Robin) G.H. Sung et al. (Ascomycota: Hypocreales) in Brazil); Vanoye-Eligio, Meléndez-Ramírez, Ayala-Barajas, Delfin-González, and Horta-Vega, 2019:7 (Mexico: Yucatán); Gadallah, 2020b:39 (in list of aculeate wasps of Arabian Peninsula); Barthélémy and Guénard, 2025:22-24 (China: Hong Kong, 10 species).

NOMEN NUDUM IN *LIRIS*

Liris pusilla Kohl: Dollfuss, 1989:10 (type material in NHMW).

SPECIES DESCRIBED IN *LIRIS* AND TRANSFERRED TO OTHER GENERA

auctus Fabricius, 1804:229 = *Ceramius auctus* according to Richards, 1962:108 (A revisionary study of the Masarid wasps); see also van der Vecht, 1970:15 (Proc. Koninkl. Nederl. Akad. Wetensch., ser. C, 73).

brunneipes Cresson, 1881 = *Diploplectron*

coxalis Patton, 1892 = *Tachytes guatemalensis* Cameron, 1889

gastrifera Strand, 1910 (*Notogonia*) = *Larra praedatrix* (Strand, 1910)

heidenii de Saussure, 1891 = *Larra*

heydenii de Saussure, 1890 = *Larra*

hyalinatus Fabricius, 1804 = ?

magnificus Provancher, 1895 = *Philanthus crabroniformis* F. Smith, 1856

maurus Fabricius, 1804 = *Larra*

nigropilosellus Cameron, 1910 = *Tachytes*

praedatrix Strand, 1910 (*Notogonia*) = *Larra*

rufipes Fabricius, 1804 = *Stizus*

rugosus Provancher, 1895 = *Philanthus ventilabris* Fabricius, 1798

varians Fabricius, 1804 = *Tachytes*

UNRECOGNIZABLE NAME

Notogonia ruficaudis Taschenberg of Strand, 1910a:159 (Paraguay), may be *Tachysphex ruficaudis* (Taschenberg).