

Last updated: 19 January 2006

SCELIPHRON

Sceliphron Klug, 1801:561. Type species: *Sphex spirifex* Linnaeus, 1758, designated by Bingham, 1897:235.

Pelopoeus Latreille, 1802b:334. Type species: *Pelopoeus spirifex*, Fab. [= *Pelopoeus spirifex* of Fabricius, 1804 = *Sphex spirifex* Linnaeus, 1758], designated by Latreille, 1810:438.

Pelopaeus Latreille, 1804:180. Lapsus or emendation of *Pelopoeus*.

Sceliphrum W. Schulz, 1906:192. Emendation of *Sceliphron* Klug, 1801.

Prosceliphron van der Vecht in van der Vecht and van Breugel, 1968:192, junior homonym of *Prosceliphron* Frenguelli, 1946. Type species: *Sceliphron coromandelicum* (Lepeletier, 1845) [= *Pelopaeus coromandelicus* Lepeletier, 1845], by original designation.

Hensenia Pagliano and Scaramozzino, 1990:5. Substitute name for *Prosceliphron* van der Vecht, 1968. May be unnecessary because *Prosceliphron* Frenguelli, 1946 is in doubt under Article 13 (Menke, 1990:29).

Revision: Hensen, 1987 (subgenus *Prosceliphron*).

Key: Leclercq and Claparède, 1978 (key to European species including the introduced *Sceliphron caementarium*); Schmid-Egger, 2005 key to European and Mediterranean species including the introduced *Sceliphron curvatum*).

List of Strepsiptera known from *Sceliphron*: Kifune and Yamane, 1985; nest parasite of *Sceliphron* sp. of the *spirifex* group in Ivory Coast: Rasplus, 1987:173 (*Leucospis reversa* Bouček, 1974).

Review of biology: Kazenas, 2001b:67.

1. *arabs* (Lepeletier de Saint Fargeau)

Pelopaeus arabs Lepeletier de Saint Fargeau, 1845:309, ♂. Lectotype: ♂, Arabia: no specific locality (MNHN, coll. Ser-ville), designated by van der Vecht in van der Vecht and van Breugel, 1968:233. – F. Smith, 1856:228 (listed); Ed. André, 1888:107 (in revision of Sphecidae of Europe and Algeria), 1888:6* (bibliographic references). – **As *Sceliphron arabs***: Dalla Torre, 1897:378 (new combination, in catalog of world Hymenoptera); Kohl, 1918:132 (original description copied); de Beaumont, 1967a:277 (Turkey), 1970c:3 (Iran: Kerman); van der Vecht and van Breugel, 1968:233 (revision); R. Bohart and Menke, 1976:105 (listed); Ebrahimi, 1993:99 (Iran); Gayubo and Özbek, 2005:4 (Turkey Antalya: Beldibi; Malatya: Battalgazi; Muş); Schmid-Egger, 2005:10 (in key to European and Mediterranean *Sceliphron*), 14 (recognition, color, distribution).

Pelopaeus caucasicus Ed. André, 1888:109, ♀. Holotype or syntypes: ♀, Caucasus: no specific locality (MNHN). – Synonymized with *Sceliphron arabs* by van der Vecht and Breugel, 1968:233. – Ed. André, 1888:6* (listed). – **As *Sceliphron caucasicum***: Dalla Torre, 1897:382 (new combination, in catalog of world Hymenoptera); Kohl, 1918:90 (in revision of world *Sceliphron*); Morice, 1921:76 (Iraq: Amara, Kurna); Gussakovskij, 1933b:2275 (Iran: Seistan: Husseinabad); de Beaumont, 1961e:2 (Iraq); Abdul Rassoul, 1976:31 (Iraq: Baghdad: Waziriya).

2. *argentifrons* (Cresson)

Pelopoeus argentifrons Cresson, 1865a:136, ♀. Holotype: ♀, Cuba: no specific locality (ANSP). – **As *Sceliphron argentifrons***: Cresson, 1916:93 (holotype in ANSP); Kohl, 1918:112 (in revision of world *Sceliphron*); Berland, 1953:237 (French Antilles); van der Vecht and van Breugel, 1968:229 (revision); Alayo Dalmau, 1973:183 (in catalog of Cuban Hymenoptera), 1976:10 (in key to Cuban *Sceliphron*), 26 (in checklist of Cuban Sphecidae); R. Bohart and Menke, 1976:105 (listed); Amarante, 2002:71 (in catalog of Neotropical Sphecidae); Portuendo and Fernández, 2004:135 (Cuba: Sierra Maestra).

As *Sceliphron fasciatum*: Porter, 1926:16 (...), corrected to *Sceliphron argentifrons* by van der Vecht and van Breugel, 1968:229;

3. *asiaticum* (Linnaeus)

Sphex asiaticus Linnaeus, 1758:569, sex not indicated (as *asiatica*, incorrect original termination). Holotype or syntypes: "in Indiis" = West Indies or Surinam: no specific locality (lost, see Schulz, 1912:56, and Day, 1979:50). – Linnaeus, 1764:405 (in museum of Queen Ludovica Ulrica, redescription); Dalla Torre, 1897:415 (in catalog of world Hymenoptera); Day, 1979:50 (taxonomic history). – **As *Sceliphron asiaticum***: van der Vecht, 1959b:129 (new combination); van der Vecht and van Breugel, 1968:226 (revision, as *asiaticum asiaticum*); R. Bohart and Menke, 1976:105 (listed); Day and Fitton, 1978:193 (recuration of Linnean type material: no specimens); Fritz and Genise, 1980 (75 (characteristic of nest cells); Genise, 1980e:315 (copulation); Nascimento and Overal, 1980:9 (Brazil); Sielfeld, 1980b:71 (in checklist of Chilean Sphecidae); Freeman, 1982:343 (Trinidad: distribution, population dynamics); Yústiz, 1987:13 (Venezuela: Central Lara Depression); Callan, 1990b:19 (in checklist of Trinidad Sphecidae); Amarante, 1993:19 (ne. Brazil); Braet, Cerda, and Fretey, 2000:8 (French Guiana); Pinzón and Gonzáles, 2000:91 (possible prey specificity on *Alpaida veniliae* Keyserling, an araneid); Amarante, 2002:71 (in catalog of Neotropical Sphecidae); Starr and Hook, 2003:22 (in catalog of Aculeata of Trinidad, West Indies).

Pelopoeus figulus Dahlbom, 1843:23, ♀ (authorship attributed to Westernmann). Holotype: ♀, Southern France: no specific locality, corrected to America by Dahlbom, 1845:434 (in key). Synonymized with *Sphex asiatica* by van der Vecht, 1959:129. – F. Smith, 1856:234 (listed); Cresson, 1863:319 (in catalog of North American Hymenoptera); de Saussure, 1867:31 (as synonym of *Pelopoeus* [sic] *vindex*); Taschenberg, 1869:429 (Argentina, Brazil, West Indies); Burmeister, 1872:241 (Argentina); F. Lynch Arribálzaga, 1878:327 (Argentina: Buenos Aires area); Strand, 1910a:127 (Paraguay); Schrottky, 1913:224 (Argentina, Paraguay, Uruguay); Kohl, 1918:119 (revision); Porter, 1926:11 (revision, as *figulum*). – **As *Sceliphron figulus***: Dalla Torre, 1897:384 (new combination, in catalog of world Hymenoptera); W. Fox, 1897b:374 (Brazil: Corumbá and Uacarizal); Schrottky, 1903b:123 (in checklist of Hymenoptera of Argentina, Paraguay, and Uruguay), 1904:344 (first record from Paraguay); Fernald, 1907:263 (Argentina); Ducke, 1910:109 (Brazil: Ceará State); Strand, 1910a:127 (Paraguay); Jörgensen, 1912:284 (Argentina: Mendoza Province; floral records); Strand, 1912:278 (Paraguay: nest structure); Schrottky, 1913a:224 (Argentina, Paraguay, Uruguay, Antilles); Bodkin, 1918:315 (British Guiana, nesting behavior); Kohl, 1918:119 (in revision of world *Sceliphron*); Frers, 1921:66 (nesting behavior, as *figulus*); Aravena, 1926:61 (nesting habits); B. Porter, 1926:11 (in revision of North American *Sceliphron*, as *figulum*); Gazulla and Ruiz Pereira, 1929:299 (Chile: Hacienda de "Las Mercedes"); Orfila and Salellas, 1929:247 (nesting habits); Bruch, 1930:367 (nesting habits); Ruiz Pereira, 1934:167 (Chile: Pahuano); Arndt, 1930:49 (nests built on dry sponge, *Parmula browni* (Bwk.), in Brazil); Bischoff and von Schulthess, 1937:165 (Argentina, Bolivia, as *figulus*); Ruiz Pereira, 1937:164 (Chile: Coquimbo Province), 1942:1942:31 (common to Chile and Argentina); Llano, 1959:52 (nest and prey, metamorphosis, as *figulus*).

Pelopaeus vindex Lepeletier de Saint Fargeau, 1845:317, ♂. Holotype or syntypes: ♂, French Guyana: Cayenne (originally Serville coll., now Turin). Synonymized with ... *figulus* by ... – Erichson, 1849:589 (British Guyana); de Saussure, 1867:31 (South America, redescription); Reed, 1894:623 (Chile, revision); Delfin, 1904:21 (Chile: Departamento de Talcahuano); Cameron, 1912a:426 (Guyana); Janvier, 1923:83 (life history), 1928:158 (nesting habits); Fraga, 1938:200 (Chile: Hacienda Mauro); Bradley, 1957:39 (Lepeletier's specimens in Turin); Casolari and Casolari Moreno, 1980:101 (specimens in M. Spinola collection); Maes, 1989:90 (in catalog of Nicaraguan Sphecidae).

Sceliphron rufescens Strand, 1910:... Synonymized with *Sceliphron asiaticum* by Bohart and Menke, 1976:105 (**or an earlier author?**).

ssp. chilense (Spinola)

Pelopoeus chilensis Spinola, 1851a:395, ♀, ♂. Lectotype: ♀, Chile: no specific locality (TORINO), designated by Menke in Bohart and Menke, 1976:105. – F. Smith, 1856:234 (listed); de Saussure, 1867:31 (as synonym of *Pelopoeus* [sic] *vindex*); B. Porter, 1926 (as new synonym of *Sceliphron figulum*); Ruiz Pereira and Porter, 1928 (is a junior synonym of *Sceliphron figulus*); Casolari and Casolari Moreno, 1980:101 (specimens in M. Spinola collection). – **As *Sceliphron figulus* var. *chilense***: Dalla Torre, 1897:384 (new combination, new status, in catalog of world Hymenoptera); Kohl,

1918:120 (revision). – **As *Sceliphron figulus chilensis***: Zapata, 1974:37 (Chile: Lampa near Santiago). – **As *Sceliphron asiaticum chilense***: van der Vecht and van Breugel, 1968:228 (revision); R. Bohart and Menke, 1976:105 (listed); Amarante, 2002:71 (in catalog of Neotropical Sphecidae).

4. *assimile* (Dahlbom)

Pelopaeus assimilis Dahlbom, 1843:23, ♀, ♂. Lectotype: ♂, Cuba: no specific locality (LUND), designated by R. Bohart and Menke, 1963:115. – Dahlbom, 1845:434 (in key); Cresson, 1863:319 (in catalog of North American Hymenoptera); de Saussure, 1867:31 (as synonym of *Pelopaeus* [sic] *vindex*). – **As *Sceliphron figulus* var. *assimile***: Dalla Torre, 1897:384 (new combination, new status, in catalog of world Hymenoptera). – **As *Sceliphron assimile***: Ashmead, 1900:308 (in checklist of Caribbean Hymenoptera); B. Porter, 1926:9 (in revision of North American *Sceliphron*); Dow, 1932:10 (Cuba; prey, cocoon); Rau, 1943:647 (Murray in Muesebeck et al., 1951:978 (in catalog of North American Hymenoptera, as *assimilis*); Evans and Lin, 1956a:148 (larva); Freeman, 1974:115 (distribution in Jamaica); R. Bohart and Menke, 1963:115 (listed); van der Vecht and van Breugel, 1968:225 (revision); Alayo Dalmau, 1973:182 (in catalog of Cuban Hymenoptera), 1976:10 (in key to Cuban *Sceliphron*), 25 (in checklist of Cuban Sphecidae); R. Bohart and Menke, 1976:105 (listed); Freeman, 1977:231 (regulation of size population in Jamaica); Freeman and Johnston, 1978a:39 (life history), 1978b:435 (gregarious roosting); Krombein, 1979b:1578 (in catalog of North American Hymenoptera); Freeman, 1980:19 (a population study in Jamaica), 1981a:161 (parental investment); Alvarez Pereyra and Reyes Villanueva, 1987:207 (floral records); Maes, 1989:91 (in catalog of Nicaraguan Sphecidae); Snelling, 1992:14 (Virgin Islands: Mona Island); Early and Townsend, 1993:52 (adventive to New Zealand, Fiji, and Tonga, not established in New Zealand); Hunt, 1993:51 (life history); Snelling, 1993:18 (British Virgin Islands: Guana Island), 19 (same: Mona Island); Genaro, 1994a:268 (inquilines in Cuba), 1996a:239 (nest parasites); Amarante, 2002:71 (in catalog of Neotropical Sphecidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:670 (in checklist of Mexican Sphecidae); Portuondo and Fernández, 2004:135 (Cuba: Sierra Maestra and Nipe-Sagua-Baracoa mountains); Fernández-Triana, Garcés Gonzales, Portuondo Ferrer, and Sánchez Ruiz, 2005:117 (list of spider prey, nest parasites, and pathogens).

As *Pelopaeus cementarius* [sic]: Cresson, 1865a:134 (Cuba), corrected to *Sceliphron assimile* by van der Vecht and van Breugel, 1968:225. – **As *Ammophila cementarius***: Ashmead, 1900:308 (in checklist of Caribbean Hymenoptera).

As *Sceliphron caementarium*: Rau, 1940:590 (Mexico: Hidalgo: Jacala; San Luis Potosí: Tamazunchale; Tamaulipas: Ciudad Victoria), corrected to *Sceliphron assimile* by Rau, 1943:647.

Sceliphron caementarium var. *nicaraguanum* Kohl, 1918:118, sex not indicated. Holotype or syntypes: Nicaragua: no specific locality (ZMHU). Synonymized with *Sceliphron assimile* by ...

5. *aterrimus* (Marquet)

Pelopaeus aterrimus Marquet, 1875:207, sex not indicated. Holotype or syntypes: France: Haute-Garonne: Toulouse: Pech-David (depository?). – Not listed by Dalla Torre, 1897; de Beaumont, 1952b; nor Bohart and Menke, 1976.

6. *caementarium* (Drury)

Mason Fly or Mouche Maçonne: Drury, 1770:105 pl. XLIV, fig. 6.

Sphex caementarius Drury, 1773:index to First Volume, ♀ (as *caementaria*, incorrect original termination). Syntypes: "Antigua and several other places in the West-Indies" (lost: van der Vecht and van Breugel, 1968:222). – Cresson, 1863:319 (in catalog of North American Hymenoptera). – **As *Pelopaeus caementarius***: F. Smith, 1856:234 (listed); A. Costa, 1864b:111 (two specimens from New Orleans, Louisiana, in Museo Zoologico di Napoli); nec Cresson, 1865a:134 (= *Sceliphron assimile*); A. Costa, 1866:24 (two specimens from Antilles in Museo Zoologico di Napoli); de Saussure, 1867:29 (synonymy and redescription, as *Pelopaeus*); Taschenberg, 1869:429 (North America; sexual dimorphism); Cresson, 1873:210 (Texas, as *caementarius*), 1875:714 (Colorado, Nevada, New Mexico, as *caementarius*); Provancher, 1883:612 (in revision of Canadian Hymenoptera); Cameron in Blackburn and Cameron, 1886:173 (common on Hawaiian Islands); Cameron, 1888a:24 (Mexico, Belize, Nicaragua); Ashmead, 1890:33 (in checklist of Hymenoptera of Colo-

rado, as *cementarius*); Bridwell, 1899:209 (Kansas: Baldwin); Viereck, 1903d:121 (Maryland: Chestertown and College Park); Maes, 1989:90 (in catalog of Nicaraguan Sphecidae). – **As *Sceliphron caementarium***: Dalla Torre, 1897:379 (new combination, in catalog of world Hymenoptera); Harrington, 1902:224 (Canada: Ontario: Ottawa, as *cementarius*); H. Smith, 1908b:327 (in revision of Nebraskan Sphecidae, as *coementarium*); Alfken, 1904:574 (Hawaii: Oahu: Honolulu); C. Turner, 1908:215 (homing experiments); Faull, 1913:384 (Canada: Toronto region); Rau and Rau, 1913:392, 397 (nesting behavior), 1916:28 (nest and prey); Rohwer, 1916b:683 (in catalog of Hymenoptera of Connecticut); Holland, 1917:294 (Cuba: Isla de Pinos, now Isla de la Juventud: Los Indios); Kohl, 1918:115 (in revision of world *Sceliphron*); Mickel, 1918b:407 (in catalog of Nebraskan Sphecidae, as *coementarium*); Savin, 1922:327 (nesting behavior); B. Porter, 1926:5 (in revision of North American *Sceliphron*); F. Williams, 1927:434 (life history on Hawaiian Islands); Cheesman, 1928a:171 (Marquesas and Society Islands); Ogilvie, 1928:50 (Bermuda); Cheesman, 1929:151 (Martinique, as *coementarium*); Dow, 1930a:98 (observations of nests by J. Bartram, 1745, probably refer to *Sceliphron caementarium* and *Trypoxylon politum*), 99 (*Vespa Ichneumon* of M. Catesby, 1748, is *Sceliphron caementarium*), 100 (*Sphex pensylvanica* of B.H. Latrobe, 1806 and 1809, is probably *Sceliphron caementarium*); Hendrickson, 1930:159 (Iowa); Rau, 1931:200 (homing experiments), 1935d:267 (list of prey species); nec Rau, 1940:590 (= *Sceliphron assimile*); Swezey, 1940:370 (Hawaiian Islands: Lualualei, prey: *Latrodectes mactans* (Fabricius)); Fernald, 1943a:290 (Florida); Dreisbach, 1944:274 (Michigan: locality records); Berland, 1945:23 (Marquesas Islands, list of spider prey); Muma and Jeffers, 1945:251 (list of spider prey, nest); Berland, 1946 (France: Versailles); Rau, 1946:10 (dipteran nest parasites: *Pachyophthalmus floridensis* Tns., *Spogostylum obsoletum* Loew, courtship behavior); Strickland, 1947:129 (Canada: Alberta: Medicine Hat); F. Williams, 1947:318 and 330 (Fiji); Spencer and Wellington, 1948:10 (British Columbia); Krombein, 1949b:381 (in key to Sphecidae of Micronesia), 388 (Marshall and Mariana Islands), 1950a:268 (North Carolina: Dare County), 1951a:143 (Virginia: Dunn Loring; visiting tulip-tree honeydew); Murray in Muesebeck et al., 1951:978 (in catalog of North American Hymenoptera); Wolcott, 1951:841 (Puerto Rico); Krombein, 1952a:94 (USA: Virginia: Westmoreland State Park); Berland, 1953:237 (French Antilles); K. Cooper, 1953:34 (Massachusetts: Penikese Island); Krombein, 1953a:333 (North Carolina), 1953b:122 (visiting foliage of *Quercus marilandica*), 123 (visiting foliage of *Quercus virginiana*), 133 (North Carolina: Kill Devil Hills); Krombein and Evans, 1954:234 (Florida), 1955:233 (Florida); Evans and Lin, 1956a:147 (larva); Fullaway, 1957:279 (in checklist of Hymenoptera of Fiji); G. Stage, 1960:191 (nest parasite: *Chrysis fuscipennis* Brullé); Yoshimoto, 1960:334 (Hawaiian Islands); R. Bohart and Menke, 1963:116 (in revision of Nearctic Sceliphriini); Krombein, 1963f:276 (Maryland: Plummers Island near Washington, D.C.); Kurczewski and Kurczewski, 1963:147 (Pennsylvania: Presque Isle State Park); Pilon and Steiner, 1966:484 (locality records from British Columbia, Michigan, and Quebec); Landers, 1967:1168 (stinging human eye and resulting nerve-blocking); van der Vecht and van Breugel, 1968:223 (revision); G. Bohart, Nye, and Hawthorn, 1970:49 (Utah: Logan, onion pollinator); Eberhardt, 1970:247 (hunting behavior); Horning and Barr, 1970:103 (USA: Idaho: Craters of the Moon National Monument); Nambu, 1972b:14 (Japan: Saitama Prefecture); Grissell, 1973:1 (morphology, biology, and host); Leclercq, 1974a:414 (France: Var: Sanary-sur-Mer); Lomholdt, 1975b:9 (Madeira); Nambu, 1975b:70 (Japan: Saitama Prefecture); R. Bohart and Menke, 1976:105 (listed); Haeseler, 1976a:369 (France: Var Sanary-sur-Mer 11 km W Toulon); Leclercq, 1976:371 (established in France, Portugal, and Madeira); L. Davis, 1978:217 (North Carolina: Kill Devil Hills, data from Krombein, 1953a); Erlandsson, 1978a:205 (Canary Islands, as *cementaria*); Leclercq and Claparède, 1978:245 (France, Portugal, review of introduction to Europe); Hefetz and Batra, 1979:1138 (geranyl acetate and 2-decen-1-ol in cephalic secretion); Horner and Klein, 1979:30 (Oklahoma; list of spider prey); Krombein, 1979b:1578 (in catalog of North American Hymenoptera); Finnamore, 1982:11 (in Sphecid Fauna of Southern Quebec); Naumann, 1983b:134 (Australia: Alice Springs; in key); Obin, 1983:321 (hunting spiders away from nesting sites); Della Lucia and Chandler, 1984:1 (mortality in overwintering generation); Cardale, 1985:221 (in catalog of Australian Sphecidae); Mitchell and Hunt, 1985:700 (nutrient and energy assays of larval provision and larval feces); Piek, 1985:33 (France); Rust, Menke, and Miller, 1985:46 (California: Channel Islands); R. Crawford, 1986:797 (spider prey in Washington State); Parks, 1986:34 (California: Torrey Pines State Reserve); Piek, 1986a:77 (supersedes *Sceliphron spirifex* in France); K. Smith, 1986:134 (nests open by downy woodpecker in Arkansas); Dean, Nyffeler, an

Sterling, 1988:283 (Texas; prey of this species and of *Chalybion californicum*); Schneider and Pelles, 1988:89 (Luxembourg); C. Ferguson and Hunt, 1989:315 (near-nest behavior); Hamon et al., 1989:115 (distribution in France); O'Brien, 1989b:203 (distribution in Michigan); Piek, 1989:54 (France: Var Department); Hilburn et al., 1990:174 (Bermuda); Kurczewski and Acciavatti, 1990:59 (New York: Cayuga County); Harris, 1992:15 (in revision of species introduced to New Zealand); Pagliano, 1992b:5 (new to Italy); Antropov, 1993e:156 (Ukraine: Odessa; in key to European species); Early and Townsend, 1993:53 (adventive to New Zealand but not established); Hamon, Fonfria, Clary, Eyraud, Schwartz, and Carrière, 1994:343 (current distribution in Europe, particularly France); Genaro, 1994c:243 (nesting behavior, utilization of nests by *Trypoxylon texense*); Ahlstrom, 1995:106 (in checklist of insects of North Carolina); Negrisoló in Minelli, Ruffo, and La Posta, 1995b:3 (in catalog of Italian fauna); Gusenleitner, 1996c:818 (Croatia: Rovinj); Strumia, 1996b:176 (Italy: established in Pisa Province); Bitsch, Barbier, Gayubo, Schmidt, and Ohl, 1997:38 (in Sphecidae Fauna of Western Europe); Matthews, 1997a:152 (using nest in teaching ecological interactions); Grillenzoni and Pesarini, 1998:84 (Italy: Ferrara); Kami and Miller, 1998:57 (in checklist of Samoan insects); Kurczewski, 1998d:250 (pine barrens in upstate New York); Campadelli, Pagliano, Scaramozzino and Strumia, 1999:225 (Italy: parasitoids and inquilines); Pauly, 1999:108 (in catalog of Belgian aculeates, an accidental introduction); Volkova, Matthews, and Barber, 1999:325 (list of spider prey); Blackledge and Pickett, 2000:211 (preying on *Argiope*: capturing spiders that drop to the ground after the wasp hit the web); Canovai et al., 2000:83 (map of collecting localities in Italy and Corsica); Pagliano, Scaramozzino, and Strumia, 2000:290 (introduction into Italy); Smit, 2000:173 (Madeira); Skevington et al., 2001:128 (Canada: Ontario: Lambton County); Gusenleitner, 2002:1124 (first record from Austria: Kärnten: Rabenstein; also Croatia: Istria); Amarante, 2002:71 (in catalog of Neotropical Sphecidae); Konno et al., 2002:310 (bradykinins not found in venom); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:670 (in checklist of Mexican Sphecidae); Carrière, 2003:419 (France: Hérault: Saint-Michel de Bagnas, coexistence with *Sceliphron destillatorium* and *spirifex*); Ohl and Linde, 2003:149 (number of ovarioles); Buck, 2004:24 (in checklist of Sphecidae of Ontario, Canada); González, Matthews, and Matthews, 2005:50 (parasite: pteromalid *Dibrachys pelos* (Grissell)); Schmid-Egger, 2005:10, 11 (in key to European and Mediterranean *Sceliphron*), 14 (recognition characters, color, distribution).

Sphex flavomaculatus De Geer, 1773:588, sex not indicated (as *flavo-maculata*, incorrect original hyphenation and termination). Syntypes: USA: Pennsylvania: no specific locality (Stockholm). Synonymized with *Pelopeus caementarius* by de Saussure, 1867:29 (by synonymizing the Substitute name *Sphex flavipunctatus* Christ). – **As *Sceliphron caementarium* var. *flavomaculatum***: Dalla Torre, 1897:380 (new combination, in catalog of world Hymenoptera).

Sphex lunatus Fabricius, 1775:347, sex not indicated (as *lunata*, incorrect original termination). Lectotype: ♀, Antigua: no specific locality (ZMK), designated by van der Vecht, 1961a:42. Synonymized with *Pelopeus caementarius* by de Saussure, 1867:29. – Thunberg, 1791:126 (specimens donated to Academia Upsaliensis); Lichtenstein, 1796:198 (in auction catalog); Jurine, 1807:128 (listed); Cresson, 1963:320 (in catalog of North American Hymenoptera). – **As *Pelopeus* [sic] *caementarius* var. *lunatus***: de Saussure, 1867:30 (new status). – **As *Pelopaeus lunatus***: Latreille, [1805]:295 (redescription); Palisot de Beauvois, 1806:50 (Dominican Republic); Guérin-Méneville, 1835:pl. 71, Fig. 5 (illustration of habitus); Dahlbom, 1843:23 (in revision of Sphecidae and Pompilidae); Guérin-Méneville, 1844:436 (citation); Dahlbom, 1845: 1845:XX (study of specimens in collection Fabricius), 434 (in key); Lepeletier de Saint Fargeau, 1845:312 (revision); Girard, 1879:972 (morphology and distribution); Casolari and Casolari Moreno, 1980:101 (specimens in M. Spinola collection). – **As *Sceliphron caementarium* var. *lunatum***: Dalla Torre, 1897:380 (new combination, in catalog of world Hymenoptera). – **As *Sceliphron caementarium* aberr. *lunatum***: W. Schulz, 1903:470 (Martinique).

Sphex flavipes Fabricius, 1781:444, sex not indicated. Lectotype: ♀, America: no specific locality (ZMK), designated by van der Vecht, 1961a:42. Synonymized with *Pelopeus caementarius* by de Saussure, 1867:29. – Fabricius, 1787:274 (...), 1793:202 (...); Lichtenstein, 1796:197, 199 (in auction catalog); Cresson, 1863:319 (in catalog of North American Hymenoptera), 1865b:463 (color variation). – **As *Pelopaeus flavipes***: Fabricius, 1804:204 (new combination, redescription); Dahlbom, 1845:XX (closely resembles *Pelopaeus lunatus*); F. Smith, 1856:233 (listed), 1979a:676 (Hawaii:

- Honolulu). – **As *Pelopeus* [sic] *caementarius* var. *flavipes***: de Saussure, 1867:30 (new status). – **As *Sceliphron caementarium* var. *flavipes***: Dalla Torre, 1897:380 (new combination, in catalog of world Hymenoptera); Kohl, 1918:117 (in revision of world *Sceliphron*). – **As *Sceliphron caementarium* subsp. or var. *flavipes***: van der Vecht, 1961a:42 (study of type material).
- Sphex flavipunctatus* Christ, 1791:301 (as *flavipunctata*, incorrect original termination). Substitute name for *Sphex caementarius* Drury. Synonymized with *Pelopeus caementarius* by de Saussure, 1867:29. – **As *Sceliphron caementarium* var. *flavipunctatum***: Dalla Torre, 1897:380 (new combination, in catalog of world Hymenoptera).
- Sphex affinis* Fabricius, 1793:203, sex not indicated. Syntypes: "in Americae insulis" (ZMK). Synonymized with *Pelopaeus lunatus* by Palisot de Beauvois, 1806:50 and Dahlbom, 1845:XX, and with *Pelopoeus caementarius* by de Saussure, 1867:29. – Cresson, 1863:319 (in catalog of North American Hymenoptera). – **As *Pepsis affinis***: Fabricius, 1804:204 (new combination, redescription). – **As *Sceliphron affine***: Dalla Torre, 1897:378 (new combination, in catalog of world Hymenoptera); Kohl, 1918:132 (original description copied). – **As *Sceliphron caementarium* subsp. or var. *affinis***: van der Vecht, 1961a:42 (study of type material).
- Pelopoeus architectus* Lepeletier de Saint Fargeau, 1845:313, ♀. Holotype or syntypes: ♀, USA: Louisiana: New Orleans (M. Spinola coll.). Synonymized with *Pelopeus caementarius* by de Saussure, 1867:29. – Cresson, 1863:319 (in catalog of North American Hymenoptera); Ashmead, 1890:33 (in checklist of Hymenoptera of Colorado); Casolari and Casolari Moreno, 1980:101 (specimens in M. Spinola collection). – **As *Pelopeus* [sic] *caementarius* var. *architectus***: de Saussure, 1867:30 (new status). – **As *Sceliphron caementarium* var. *architectus***: Dalla Torre, 1897:380 (new combination, in catalog of world Hymenoptera).
- Pelopoeus servillei* Lepeletier de Saint Fargeau, 1845:313, ♀ (as *Servillei*, incorrect original capitalization). Holotype or syntypes: ♀, origin unknown (originally Serville coll., now M. Spinola coll.). Synonymized with ... by ... – F. Smith, 1856:233 (listed); Cresson, 1863:319 (in catalog of North American Hymenoptera); de Saussure, 1867:31 (California, redescription); Cockerell, 1901:40 (floral records); Rohwer, 1917a:241 (California: Santa Barbara); Johnson and Ledig, 1918:24 (California: Claremont); Bradley, 1957:40 (Lepeletier's specimens in Turin); Casolari and Casolari Moreno, 1980:102 (specimens in M. Spinola collection). – **As *Sceliphron servillei***: Dalla Torre, 1897:389 (new combination, in catalog of world Hymenoptera). – **As *Sceliphron caementarium* var. *servillei***: Kohl, 1918:118 (new status, in revision of world *Sceliphron*).
- Pelopaeus solieri* Lepeletier de Saint Fargeau, 1845:318, ♀ (as *Solieri*, incorrect original capitalization). Holotype or syntypes: ♀, Guadeloupe: no specific locality (Turin). Synonymized with *Pelopeus caementarius* by de Saussure, 1867:29. – F. Smith, 1856:230 (listed); Cresson, 1863:319 (in catalog of North American Hymenoptera); Maindron, 1878:397 (in checklist of *Pelopaeus* of India and Indian Archipelago); Cameron, 1889c:102 (listed, as *solieri*); Bradley, 1957:39 (Lepeletier's specimens in Turin); Casolari and Casolari Moreno, 1980:101 (specimens in M. Spinola collection). – **As *Sceliphron solieri***: Bingham, 1897:238 (original description translated, India); Begum and Bose, 1976:26 (Bangladesh: Dakka); Begum, Bose, and Howlander, 1989:125 (life history in Bangladesh); Begum, Khan, and Bose, 1995:174 (Bangladesh: Dhaka University Campus).
- Pelopoeus canadensis* F. Smith, 1856:233, ♂ (as *canadensis*, incorrect original capitalization). Holotype or syntypes: ♂, Canada: no specific locality (BMNH). Synonymized with *Pelopeus caementarius* by de Saussure, 1867:29. – Cresson, 1863:319 (in catalog of North American Hymenoptera).
- Pelopoeus nigriventris* A. Costa, 1864a:60, sex not indicated. Holotype: North America: no specific locality (NAPOLI). Synonymized with ... by ... – **As *Sceliphron nigriventre***: Dalla Torre, 1897:388 (new combination, in catalog of world Hymenoptera). – **As *Sceliphron caementarium* var. *nigriventre***: Kohl, 1918:117 (new status, in revision of world *Sceliphron*).
- Pelopeus* [sic] *tahitensis* de Saussure, 1867:27, ♀, ♂. Lectotype: ♂, Tahiti: Otahiti (NHMW), designated by Menke in Bohart and Menke, 1976:105. Synonymized with ... by ... – **As *Sceliphron tahitensis***: Dalla Torre, 1897:391 (new combination, in catalog of world Hymenoptera).

Sphex economicus Curtiss, 1938:154, sex not indicated (as *economica*, incorrect original termination). Syntypes: Tahiti: Tautira (depository unknown). Synonymized with *Sceliphron caementarium* by Menke in Bohart and Menke, 1976:105.

As *Sceliphron tubifex*: E. Saunders, 1903c:210 (Madeira), corrected to *Sceliphron caementarium* by Lomholdt, 1975a:9.

As The Mud Dauber: Stewart, 1935:341 (nesting in train air brakes).

7. *coromandelicum* (Lepeletier de Saint Fargeau)

Pelopaeus coromandelicus Lepeletier de Saint Fargeau, 1845:306, ♀ (as *Coromandelicus*, incorrect original capitalization). Holotype or syntypes: ♀, India: Coromandel Coast: no specific locality (M. Spinola coll.). – F. Smith, 1856:231 (listed); Maindron, 1878:397 (in checklist of *Pelopaeus* of India and Indian Archipelago); Cameron, 1889:101 (listed), 104 (redescription); Casolari and Casolari Moreno, 1980:101 (specimens in M. Spinola collection). – As *Ammophila coromandelica*: Casolari and Casolari Moreno, 1980:100 (specimens in M. Spinola collection). – As *Sceliphron coromandelicum*: Bingham, 1897:238 (redescription); Dalla Torre, 1897:382 (new combination, in catalog of world Hymenoptera); Dutt, 1912:216 (India: Pusa; life history), Field, 1914:378 (life history); Strand, 1915:91 (Sri Lanka); Kohl, 1918:125 (in revision of world *Sceliphron*); Iwata, 1964b:362 (Cambodia, Thailand; summary of biological information); van der Vecht and van Breugel, 1968:192 (type species of *Prosceliphron*); R. Bohart and Menke, 1976:106 (listed); Joshi, 1984:762 (spinning cocoon by larva); Hensen, 1987:243 (revision; India, Sri Lanka, Bangladesh, Burma, Thailand, Laos, Malaysia); Marathe and Joshi, 1990:24 (histological structure of corpora pedunculata); Early and Townsend, 1993:53 (adventive to New Zealand but not established); Jha and Farooqi, 1994:13 (description and illustration of male genitalia).

8. *curvatum* (F. Smith)

Pelopaeus curvatus F. Smith, 1870:187, "♀", but actually ♂. Lectotype: ♂, India: , India: North-West Provinces, now Uttar Pradesh: Manipuri (BMNH), designated by Hensen, 1987:230. – Bingham, 1897:239 (as synonym of *Sceliphron deforme*); Cameron, 1889c:101 (listed). – As *Sceliphron curvatum*: Dalla Torre, 1897:382 (new combination, in catalog of world Hymenoptera); Strand, 1915:91 (India: Naga Hills); Kohl, 1918:122 (as synonym of *Sceliphron deforme*); van der Vecht in Bohart and Menke, 1976:106 (listed; resurrected status); van der Vecht, 1984a:213 (good species, redescription, Austria); Dollfuss, 1987:18 (Austria); Gepp and Bregant, 1987:221 (introduced into Styria, Austria; life history); Hensen, 1987:230 (revision; Kazakhstan and Tajikistan, Pakistan, Nepal, India, Austria); Gayubo, Borsato, and Osella, 1992:274 (Pakistan: Karakorum: Skardu); Ebmer, 1995:276 (Austria: Burgenland and Kärnten); Gepp, 1995:153 (history of invasion in Austria, nesting habits); Gogala, 1995:73 (first record from Slovenia); Gusenleitner, 1996a:6 (Austria: Oberösterreich and Osttirol), 1996c:817 (Croatia: Rovinj); Scaramozzino, 1996:9 (Italy: Bologna); Bitsch, Barbier, Gayubo, Schmidt, and Ohl, 1997:43 (in Sphecid Fauna of Western Europe); Dollfuss, Gusenleitner, and Bregant, 1998:509 (Austria: summary of collecting records from Burgenland); Grillenzoni and Pesarini, 1998:83 (Italy: Ferrara); Pagliano, Scaramozzino, and Strumia, 2000:291 (introduction into Italy); Zettel, 2000:23 (Austria: Ternitz, Wien. Wiener Neustadt); Gonseth, Imbeck, and Tussac, 2001:99 (first records from France and Switzerland); Zettel, Gross, and Mazzucco, 2001:66 (Austria: Wien); Osten, 2003:13 (Germany: Stuttgart); Shoreiko, 2003:97 (Ukraine: Zakarpatt'ye, Khar'kov oblast', Crimea); Carrière, 2004:159 (France: Hérault: Saint Michel du Bagnas, nesting habits, photographs); Četković, Radović, and Đorović, 2004:226 (Serbia, Croatia); Straka, Bogusch, Tyrner, and Vepřek, 2004:146 (Czech Republic: Brno, Moravský Krumlov, Praha, Přerov); Dorow and Jäger, 2005:37 (Germany: Hessen: Roßdorf near Darmstadt, list of prey species); Hellrigl, 2005:29 (distribution in Italy; Bolzano-AltoAdige Province, as Südtirol); Fluck, 2004:21 (first record from Hessen, Germany: Eltville at 50°01.4'N 8°06.5'E, also Darmstadt); Schmid-Egger, 2004a:8 (distribution in Germany); Bogusch, Liška, Lukaš, and Dudich, 2005:215 (Czech Republic and Slovakia); Carrière, 2005:257 (nesting habits, photographs); Jacobi, 2005a:35 (Germany: first record from Nordrhein-Westfalen: Oberhausen at 51°30'6"N 51°30'6"E), 2005b:36 (Italy: Toscana: Caldesi; France: Corse: Ostriconi); Jacobs, 2005:438 (first record from Bulgaria: Plovdiv Region: Hissarya); Schmid-Egger, 2005:10 (in key to European and Mediterranean *Sceliphron*), 11 (recognition, color, distribution), 15 (distribution in Europe and history of colonization).

As *Sceliphron deforme*: Basil-Edwardes, 1921:293 (nesting habits), corrected to *Sceliphron curvatum* by Hensen, 1987:220; Matsumura and Uchida, 1926:40 (Okinawa); Gussakovskij, 1935:416 (Tajikistan), present correction; de Beaumont, 1961b:272 (Afghanistan), present correction; Abdul Rassoul, 1976:32 (Iraq: Baghdad: Waziriya), present correction; de Beaumont, 1970a:390 (Afghanistan), corrected to *Sceliphron curvatum* by Hensen, 1987:230.

As *Sceliphron performe* (misspelling of *deforme*: Islamov, 1986:517 (Uzbekistan: Tashkent Oblast'), present correction based on geographic distribution.

9. *deforme* (F. Smith)

Pelopoeus deformis F. Smith, 1856:231, ♀. Lectotype: ♀, North China: no specific locality (BMNH), designated by Hensen, 1987:238. – F. Smith, 1873a:191 (Japan: Hakodate); Bingham, 1897:239 (as synonym of *Sceliphron formosum*). – **As *Sceliphron deforme***: Mocsáry, 1892:127 (Tibet: Yarkalo); Sickmann, 1894:220 (China: Hopei Province: Tientsin); Dalla Torre, 1897:383 (in catalog of world Hymenoptera); Strand, 1913a:85 (Taiwan), 1915:91 (China: Tsingtau, now Qingsdao); R. Turner, 1917e:176 (status); Kohl, 1918:122 (in revision of world *Sceliphron*); nec Williams, 1919:122 (= *Sceliphron rufopictum laticinctum*); nec Basil Edwardes, 1921:293 (= *Sceliphron curvatum*); nec Rohwer, 1922:675 (= *Sceliphron rufopictum laticinctum*); Gussakovskij, 1932:4 (Russia: Primorskiy Krai), 1934a:4 (China: NE Szechuan), 1935:416 (Tajikistan: Zevar); Yasumatsu, 1935c:58 (Philippines: Basilan Island: Maloong); Gussakovskij, 1936:4 (China: NE Szechuan), 1938:4 (China: Kiangsu Province); Iwata, 1939b:169 (Taiwan; nesting habits); Gussakovskij, 1940:84 (Tajikistan: Hissar Range); Yasumatsu, 1942:106 (China: Beijing); nec de Beaumont, 1961b:272 (= *Sceliphron curvatum*); Tsuneki, 1964c:10 (Japan: Kyushu); Baltazar, 1966:346 (in catalog of Hymenoptera of Philippines); Tsuneki, 1967j:6 (Taiwan); Fukuda, 1968:26 (Japan); Haneda, 1968a:45 (Japan), 1968b:56 (Japan: Nagano Prefecture: Ina District); Nishino, 1968:24 (Japan); Haneda, 1969:69 (Japan: Yamanashi Prefecture); nec de Beaumont, 1970a:390 (= *Sceliphron curvatum*); Tano, 1971:82 (Japan: Shikoku: Mt. Tsurugi); Tsuneki 1971f:6 (Taiwan), 1971m:6 (China: Peking: Tiendang); nec Abdul Rassoul, 1976:32 (= *Sceliphron curvatum*); R. Bohart and Menke, 1976:106 (listed); Tsuneki, 1976d:292 (China: Manchuria); Kazenas, 1978b:45 (in key to Sphecidae of Kazakhstan and Central Asia), 1980e:81 (Russia: Far East), 1986:237 (rare in Kazakhstan, needs protection); Hensen, 1987:230 (revision), 236 (as *deforme deforme*; Mongolia, China, Taiwan, Vietnam); Hua, 1989:116 (China); Sk. Yamane and Ikudome, 1990:104 (distribution in Ryukyu Islands, Japan); Nemkov, 1992b:243 (Russia: Far East: Khingan Nature Reserve); Tano, Nozaka, Kurokawa, and Murota, 1994:58 (Philippines); Li, 1995:87 (in key to Chinese Sceliphriini); Li and Yang, 1995d:271 (China: Zhejiang Province: Gutianshan); Nemkov in Nemkov, Kazenas, Budrys, and Antropov, 1995:382 (in key to Sphecidae of Russian Far East); Wu and Zhou, 1996:26 (revision in Economic Insect Fauna of China); Yamane, Ikudome, and Terayama, 1999:481 (in Identification Guide to Sphecidae of Nansei = Ryukyu Islands, Japan); Kazenas, 2001b:12 (in checklist of Sphecidae of Kazakhstan and Central Asia), 70 (nest structure); Kazenas and Esenbekova, 2001:133 (Kazakhstan: Almatinskiy Nature Reserve); Kazenas, 2002a:24 (geographic distribution, collecting localities in Kazakhstan); Ohl and Linde, 2003:149 (number of ovarioles); Četković, Radović, and Đorović, 2004:227 (Montenegro: Ulcinj County: Vladimir); Schmid-Egger, 2005:10 (in key to European and Mediterranean *Sceliphron*), 11 (recognition, color, distribution).

Sceliphron deforme taiwanum Tsuneki, 1971f:6, ♀, ♂. Holotype: ♀, Taiwan: Taitung Prefecture: Chulu (originally K. Tsuneki coll., now USNM). Synonymized with *Sceliphron deforme deforme* by Hensen, 1987:238. – Suda, 1972a:26 (Japan: Chiba Prefecture); Tsuneki, 1972b:20 (Japan: Chiba Pref.); Murota, 1973b:116 (Taiwan); R. Bohart and Menke, 1976:106 (listed); Tsuneki, 1982g:56 (known from the Ryukyu archipelago); Nuhn and Menke, 1994:26 (holotype transferred to USNM). – **As *Sceliphron curvatum taiwanum***: Porter, Stange, and Wang, 1999:5 (in checklist of Sphecidae of Taiwan).

ssp. atripes F. Morawitz

Pelopoeus atripes F. Morawitz, 1888:271, ♀. Lectotype: ♀, Kazakhstan: Semipalatinsk (ZIL), designated by Hensen, 1987:240. – **As *Sceliphron atripes***: Dalla Torre, 1897:378 (new combination, in catalog of world Hymenoptera); Kohl, 1918:122 (as new synonym of *Sceliphron deforme*), 133 (original description copied). – **As *Sceliphron deforme atripes***:

R. Bohart and Menke, 1976:106 (listed); Hensen, 1987:240 (revision; Mongolia, China, Korea; Russia: Primorskiy Krai); Li, 1995:87 (in key to Chinese Sceliphronini); Kazenas, 2001b:12 (in checklist of Sphecidae of Kazakhstan and Central Asia).

Sceliphron deforme var. *koreanum* Uchida, 1925:329. Synonymized with *Sceliphron deforme atripes* by Hensen, 1987:240. – **As *Sceliphron deforme koreanum***: Tsuneki, 1967j:6 (Korea; redescription, nec Japanese specimens which = *deforme nipponicum*), 1969e:25 (Japan), 1971m:7 (redescription); R. Bohart and Menke, 1976:106 (listed).

ssp. femorale Hensen

Sceliphron deforme femorale Hensen, 1987:236, ♀. Holotype: ♀, Thailand: Chiangmai (USNM). Paratype: Laos.

ssp. nipponicum Tsuneki

As *Sceliphron deforme*: Tsuneki and Shimoyama, 1963:48 (Japan: Towada Pref.); Tsuneki, 1964c:10 (Japan: Kyushu), 1969i:59 (Japan: Fukui); Yamada, 1971:34 (Japan: Aichi Prefecture); Nambu, 1973d:152 (Japan: Saitama Pref.).

As *Sceliphron deforme koreanum*: Tsuneki, 1967j:6 (Japanese specimens only), corrected to *Sceliphron deforme japonicum* by Tsuneki, 1971m:6 and to *Sceliphron deforme nipponicum* by Tsuneki, 1972b:1.

As *Sceliphron deforme japonicum* Gribodo: Tsuneki, 1971m:7 (redescription), corrected to *Sceliphron deforme nipponicum* by Tsuneki, 1972b:1.

Sceliphron deforme nipponicum Tsuneki, 1972b:1, ♀, ♂. Holotype: ♀, Japan: Fukui Prefecture: Iwaya (originally K. Tsuneki coll., now Hyogo Mus.). – Suda, 1973:123 (Japan: Yamanashi Pref.); Nambu, 1975b:70 (Japan: Saitama Pref.); R. Bohart and Menke, 1976:106 (listed); Hensen, 1987:240 (revision; Japan); Tano, 1994a:3 (holotype in K. Tsuneki collection); Hashimoto and Nakanishi, 1997:29 (holotype transferred to Hyogo Mus.).

ssp. tibiale Cameron

As *Sceliphron formosum*: Bingham, 1897:239 (revision), corrected to *Sceliphron deforme tibiale* by Hensen, 1987:234; Paiva, 1907:15 (India: Uttar Pradesh: Mussoorie), present correction.

Sceliphron tibiale Cameron, 1899:53, sex not indicated. Lectotype: ♀, India: Assam: Khasia Hills (OXUM), designated by Hensen, 1987:236. – Ramakrishna Aiyar, 1916:554 (in catalog of Indian aculeates described after Bingham, 1897). – **As *Sceliphron deforme tibiale***: R. Bohart and Menke, 1976:106 (listed); Hensen, 1987:234 (revision; India, Burma).

Sceliphron lineatipes Cameron, 1900a:36, ♂. Lectotype: ♂, India: Assam: Khasia (OUM), designated by Hensen, 1987:236. Synonymized with *Sceliphron ...* by (Kohl, 1918?). – Ramakrishna Aiyar, 1916:554 (in catalog of Indian aculeates described after Bingham, 1897).

As *Sceliphron deforme*: Strand, 1914:116 (nest).

10. destillatorium (Illiger)

Pepsis destillatoria Illiger 1807b:94, sex not indicated. Holotype of syntypes: Europe: no specific locality (destroyed). – **As *Pelopaeus destillatorius***: Germar, 1817:261 (Dalmatia: Zara, now Croatia: Zadar); Vander Linden, 1827:366 (synonymy, Italy); Dahlbom, 1843:22 (in revision of Sphecidae and Pompilidae), 1845:434 (in key); Eversmann, 1846b:248 (nesting habits), 1849:366 (Russia: Astrakhan, Orenburg, and Saratov provinces, also southern Ural Mts. and Kazakhstan); Wissmann, 1849:10 (Germany: Kingdom of Hannover: Hannover); Kirchner, 1854:311 (Czechoslovakia: Kaplitz in Budweiser District, now České Budějovice); F. Smith, 1856:227 (listed); Schenck, 1857:219 (in revision of fossorial wasps of Nassau Region, Germany); Taschenberg, 1858:59 (Germany); Frauenfeld, 1861:103 (Croatia: Dalmatia); Schenck, 1861:162 (redescription, Austria, Czech Republic, and Germany: Hannover); Sichel, 1861:751 (Italy: Sicilia); A. Costa, 1867b:74 and 1867c:18 (in revision of Italian Sphecidae); Kirchner, 1867:217 (in catalog of European Hymenoptera); Palma, 1867:38 (Italy: Sicilia settentrionale); Schenck, 1867a:357 (known from Germany); Wierzejski, 1868:117 (Ukraine: Stanislavov, Kalinowce); Aichinger, 1870:322 (Austria: Tirol); Radoszkowski, 1871:198 (Iran: As-trabad, now Gorgan, as *distillatorius*); Ivanov, 1872:152 (Ukraine: Kharkov area); Beletskiy, 1873:80 (Ukraine: vicinity of Khar'kov); Mocsáry, 1874:120 (Siebenbürgen: Hermannstadt, now Romania: Transylvania: Sibiu); Wierzejski, 1874:258 (Ukraine: Podole); Becker, 1880:152 (Russia: Sarepta, now Krasnoarmeysk S Volgograd); Kohl, 1880:181

(Italy: Trentino-Alto Adige); Magretti, 1881:116 (Italy: Lombardia), 270 (listed); De Stefani Perez, 1882:39 (Italy: Sicilia: Sciacca); Sajó, 1882:5 (Hungary); Kohl, 1883e:674 (Switzerland); De Stefani Perez, 1884a:9 (parasite: *Stilbum splendidum* Fabricius); Magretti, 1882b:160 (Italy: Sardegna); Radoszkowski, 1886a:24 (Turkmenistan); Gasperini, 1887:18 (Dalmatia: Brusije and Lissa Island, now Croatia: Brusje on Hvar Island, Vis Island); Kohl, 1888b:729 (Austria: Tirol, now Italy: Alto Adige); Gasperini, 1889:70 (Dalmatia: Spalato, now Croatia: Split); F. Morawitz, 1891a:205 (Russia: Astrakhan Government); Radoszkowski, 1892:580 (male genitalia); Baldini, 1894:49 (Italy: Modena area); N. Arnold, 1902:90 (Russia: Mohilev Province, now Belarus'); Chyzer, 1902:33 (Hungary); Antiga and Bofill, 1904:3 (Spain: Cataluña Province); Strand, 1915:91 (Greece); Coulon, 1925:115 (Spain, Morocco, Romania: Bucharest); Kolosov, 1934a:99 (Eversmann observations of 1848b translated into Russian); Zavadil, 1934:187 (Slovakia); Casolari and Casolari Moreno, 1980:101 (specimens in M. Spinola collection). – **As *Sceliphron destillatorium***: Kohl, 1893a:36 (Austria: Niederösterreich, as *destillatorius*); Sickmann, 1894:218 (China: Hopei Province: Tientsin); Dalla Torre, 1897:383 (as new in catalog of world Hymenoptera); Mocsáry, 1897:79 (Kingdom of Hungary, some localities are in today's Croatia, Romania, and Slovakia); Kokujev, 1902:10 (Turkmenistan: Dushak); Zilahi Kiss, 1904:77 (Hungary: Hadad, Peér); Vángel, 1905:166 (Hungary); Graeffe, 1906:455 (Tunisia: Tunis area); Móczár and Henter, 1907:205 (Hungary: Acsalag, Hajdúszoboszló, Harta, Tiszaalpár, Zelenika); de Gaulle, 1908:103 (in catalog of French Hymenoptera, also var. *pensile*); Graeffe, 1911:48 (Italy: Trieste area, as *destillatorius*); Kohl, 1913b:15 (Russia: Voronezh Oblast': Valuyki at 50°14'N 38°08'E); Smits van Burgst, 1913a:319 (Tunisia); Szilády, 1913:89 (Hungary: Nagyenyed, Novim Plitvicza); Kohl, 1918:100 (in revision of world *Sceliphron*); Kerenskiy, 1919:36 (Russia: Penza Government); Fahringer and Friese, 1921:159 (Turkey: Erzurum: Das Dagh in Amanus Mts. = Gavur Dağları, as *destillatorius*); Fahringer, 1922:175 (Turkey, as *destillatorius*); Mairl, 1922:66 (Albania, Croatia, Montenegro); Berland, 1925d:43 (in Sphecidae Fauna of France); von Schulthess, 1926b:208 (Tunisia, as *destillatorius*); France); F. Werner, 1927:67 (Austria: Niederösterreich: River Kamp valley); A. Müller, 1930:181 (Bulgaria: Kaliakra; Romania: Brăila); Bischoff, 1931:8 (Spain); Dusmet y Alonso, 1931:6 (Portugal: Gaharica); Giordani Soika, 1932a:21 (Italy: Lido di Venezia); Bernard, 1933:61 (France: Drôme: Dieulefit); Bischoff, 1933:6 (Morocco); Gussakovskij, 1933b:275 (Iran); Nadig, 1933:100 (Morocco, also var. *pensile*); Giner Marí, 1934a:131 (Spain); Grandi, 1934:130 (Italy: Lazio: Acilia); Gussakovskij, 1934a:4 (China); Mairl, 1934:64 (Greece: Aegean Islands: Amorgos, Samos); Bernard, 1935:61 (France: Var: Fréjus area), 62 (nest characteristics); Gussakovskij, 1935:415 (Tajikistan); Mazek-Fialla, 1935:470 (Austria: Neusiedler Lake); Bernard, 1936c:287 (France: Aude: Ile Sainte-Lucie; Hérault: Valvras; Var: Fréjus) Mazek-Fialla, 1936:298 (nesting behavior); Zavadil, Šustera, and Bat'a, 1937:215 (in catalog of Sphecidae of Czechoslovakia, as *destillatorius*); Guiglia, 1938b:9 (Italy: Sardegna); Kolubajiv, 1938:25 (Czechoslovakia: Slovakia: Kameňany); Kuntze, 1939:7 (Poland: Wolczyniec near Stanisławów, now Ukraine: Volchynetz near Ivano-Frankovsk); Zavadil, 1939:121 (Czech Republic); Mader, 1940:103 (probable host of *Stilbum calens* F.); Guiglia, 1941c:164 (Italy: Calabria: Grande Sila); Berland, 1943b:48 (distribution extends from southern France to nearly all Africa); Giner Marí, 1943a:62 (in Sphecidae Fauna of Spain); Giordani Soika, 1944:13 (Italy: Sicilia: Falcone, Messina); Guiglia, 1944b:9 (Italy, as *distillatorium*); Giner Marí, 1945b:359 (e. Morocco: Muley Rechid); L. Móczár, 1946:36 (nesting habits); Zavadil, 1946:9 (Czechoslovakia: Ostrava area, as *destillatorius*); Balthasar, 1948:144 (Slovakia: Kovačov, Parkan); de Andrade, 1949:4 (Portugal); Sala de Castellarnau, 1949:89 (Spain: Teruel: Bronchales); de Beaumont, 1950f:396 (Morocco); Scobiola, 1950:22 (Romania); de Beaumont, 1951e:270 (Morocco); Móczár, 1953:309 (Hungary); Nouvel and Ribaut, 1953:177 (France: cited from Hautes-Pyrénées: Luz, par Berland, 1925); de Beaumont, 1954e:86 (Italy); Hoffer, 1954:122 (Czechoslovakia: Praha; Moravia: Bystřice near Hostýn, Olomouc, Hodonín, Čejč; Slovakia: Šturovo, Turna); Grandi, 1954:236 (Italy; also *destillatorium pensilis*); Atanassov, 1955:205 (Bulgaria: Obzor in Pomoriye district, Sandanski, Varna, as Stalin); de Beaumont and Bytinski-Salz, 1955:44 (Israel); Harant and Leclercq, 1955:251 (France: Hérault: Avèze); Leclercq, 1955h:63 (bibliographic references, locality records from Africa); Steiner, 1955:134 (France: Dordogne); Vogrin, 1955:31 (Yugoslavia); Bytinski-Salz, 1956:224 (Turkey); Morel, Nouvel, and Ribaut, 1956:337 (France: Département des Pyrénées-Orientales); Grandi, 1957:387 (Italy); Leclercq, 1956g:324 (Greece); Pulawski, 1958a:164 (Bulgaria); de Beaumont, 1959a:8 (Italy); Diniz, 1959:27 (Portugal: five localities); Giner Marí, 1959:387 (Morocco); Scobiola-

Palade, 1959:499 (Romania: Dobrogea); Suárez *in* Giner Marí, 1959:400 (recorded from Morocco by de Beaumont, 1951); Suárez, 1959:53 (Spain: Almería Province); de Beaumont, 1960a:6 (Greece: Rhodes Island); Noskiewicz and Puławski, 1960:42 (in key to Polish Sphecidae, not yet found in Poland); de Beaumont, 1961b:272 (Afghanistan), 1961c:45 (Greece: Crete Island); Atanassov, 1962:127 (Bulgaria: Petrich area); de Beaumont, 1962b:20 (Spain); Lehrer and Scutaru, 1963:287 (Romania: Iași); Myartseva, 1963b:59 (Turkmenistan: lower Murgab River); Ceballos, 1964:87 (in supplement to catalog of Spanish Sphecidae); de Beaumont, 1964c:30 (in Sphecid Fauna of Switzerland); Atanassov, 1965:91 (Greece: Thasos Island); de Beaumont, 1965a:17 (Greece); Diniz, 1965:3 (Portugal: ten localities); Myartseva, 1965:87 (Turkmenistan: Akibay, Iolotan'); Balthasar, Hrubant, and Hrubant, 1967:176 (Bulgaria: Slanchev Bryag near Nessebar); de Beaumont, 1967a:276 (Turkey); Scobiola-Palade, 1967a:161 (Romania), 1967b:37 (Romania); Benedek, 1968:70 (Hungary, floral records); Myartseva, 1968:61 (locality records from Turkmenistan), 63 (nesting behavior); Scobiola-Palade, 1968b:141 (Romania), 1968c:382 (Romania); van der Vecht and van Breugel, 1968:238 (revision); de Beaumont, 1969:81 (Turkey); Benedek, 1969a:83 (Hungary; marshy meadow), 1969b:421 (Hungary: Csopak, collected in vicinity of aphid *Hyalopteritena pruni* (Geoffroy)); Romanova, 1969:133 (Russia: North Caucasus); Benedek, 1970:96 (Hungary: Tapolca); Tsuneki, 1971m:6 (China: Peking: Tiendang); Valetta, 1971:46 (Malta); Atanassov, 1972a:193 (Bulgaria: Stara Planina Mountains), 1972b:32, 48 (Bulgaria: Stara Planina Mountains); Balthasar, 1972:437 (in Sphecid Fauna of Czechoslovakia); Kazenas, 1972b:115 (Kazakhstan); Myartseva, 1972b:111 (parasite: *Chrysis (Tetrachrysis)* sp.); Scobiola-Palade, 1972:148 (Romania); Móczár, 1973:144 (visiting nests of *Paragymnomerus spiricornis* Spinola); Egger, 1974:57 (Austria: Wien area); Erlandsson, 1974:59 (France, Yugoslavia); Scobiola-Palade, 1974:144 (Romania); Benedek, 1975:257 (Hungary; onion pollinator); R. Bohart and Menke, 1976:105 (listed); Hae-seler, 1976a:370 (France, Spain); Kolesnikov, 1977:317 (Russia: Bryansk Oblast); Kazenas, 1978b:45 (in key to Sphecidae of Kazakhstan and Central Asia); Marion, 1978:86 (France, Morocco); Benedek, 1979:227 (Hungary: Bakony Hills); Pagliano, 1980:111 (Italy: Piemonte); Dollfuss, 1983b:2 (Austria); Mingo and Gayubo, 1983:139 (Spain); Józán, 1983:98 (Hungary); Schmidt and Westrich, 1983:120 (Greece); Gayubo, 1984c:354 (Portugal: El Algarve Province); Gayubo and Tormos, 1984:7 (Spain: Valencia); Pagliano, 1984:369 (Italy), 1985:22 (Italy); Chevin and Chevin, 1985:38 (France: Aude); Józán, 1985b:55 (Hungary S Lake Balaton), 75 (floral records), 83 (ecological and zoogeographic characteristics), 1986:367 (Hungary: Kiskunság National Park); Scobiola-Palade, 1985:95 (Romania: delta of Danube); Soszyński and Soszyński, 1985:213 (se. Poland); Gayubo, 1986b:34 (Spain: Andalucía), 1986c:30 (Spain: Zamora Province); Gayubo and Heras, 1986:25 (Spain: Segovia and Valladolid Provinces; floral records); Gayubo and Sanza, 1986:26 (Spain: Burgos, Soria); Gayubo and Tormos, 1986a:7 (Spain: Castellón de la Plana), 1986b:3 (Spain: Valencia); Islamov, 1986:517 (Uzbekistan: Tashkent Oblast); Asís and Jiménez, 1987:23 (Spain: Castellón Province); Campadelli and Pagliano, 1987:39 (nest parasites and inquilines); Gayubo, 1987:105 (Spain: Ciudad Real Province); Dollfuss, 1987:18 (Austria); Scobiola-Palade, 1987:65 (Romania: Dobrogea); Tormos and Jiménez, 1987a:121 (Spain: Valencia), 1987b:316 (Spain: Valencia Province: Dehesa de El Saler); Karsai, 1988:99 (Hungary: Kiskunság National Park); Józán, 1989:100 (Hungary: Tihany Nature Reserve); Pádr *in* Šedivý, 1989a:166 (in checklist of Czechoslovakian Sphecidae); Scobiola-Palade, 1989:87 (Romania: delta of Danube); Kuznetzova, 1990:17 (Russia: Voronezh Oblast': Galich'ya Gora Nature Reserve); Pagliano, 1990:63 (in catalogue of Italian Sphecidae); Gayubo, Asís, and Tormos, 1990a:8 (Spain); Schwammberger and Priesner, 1990:532 (Austria: Kärnten); Asís, Gayubo, and Tormos, 1991b:105 (larva); Gayubo, Borsato, and Osella, 1991:391 (Italy); Gayubo and Torres, 1991:Table I (Spain: Salamanca; effects of urban pressure); Gusenleitner, 1991:644 (Austria: Wien, Steiermark, Kärnten); Józán, 1991:602 (Hungary: Bátorliget Nature Reserve); Negrisolo, 1991:315 (Italy: Udine and Treviso Provinces); Schembri, 1991:177 (Malta); Gayubo, Borsato, and Osella, 1992:274 (Greece, Morocco); Gusenleitner, 1992:683 (Austria: Steiermark); Józán, 1992a:228 (Hungary: Béda-Karapanca Protected Area); Gorobchishin, 1993:46 (Ukraine: Kanev Nature Reserve); Negrisolo and Pagliano, 1993:90 (Italy: Sardegna); Dollfuss, 1994:103 (endangered in Austria); Tormos, Asís, and Gayubo, 1994:187, 191 (Spain: Albacete Province); Gayubo and Borsato, 1994:198 (Italy: Veneto, Toscana, Basilicata); Gorobchishin, 1995:17 (Ukraine: Kanev Nature Reserve); Józán, 1995:104 (Hungary: projected Duna-Dráva National Park); Krasnobayev et al., 1995:139 (Russia: Zhiguli Hills NW Samara); Negrisolo, 1995a:22 (Italy: Veneto); Negrisolo *in* Minelli, Ruffo, and

La Posta, 1995b:3 (in catalog of Italian fauna); Nemkov *in* Nemkov, Kazenas, Budrys, and Antropov, 1995:384 (in key to Sphecidae of Russian Far East); Pagliano and Pesarini, 1995:82 (Italy: Ferrara Province); Celary, 1996:253 (distribution in Poland); Gorobchishin, 1996:53 (Ukraine: Kanev Nature Reserve); Gusenleitner, 1996b:810 (Austria: Oberösterreich), 1996c:818 (Croatia: Rovinj); Minoranskiy and Shkuratov, 1996:81 (Russia: Rostov Oblast'); Voblenko, Gorobchishin, and Nesterov, 1996:14 (Ukraine: Polesye Region); Wu and Zhou, 1996:27 (revision in Economic Insect Fauna of China); Bitsch, Barbier, Gayubo, Schmidt, and Ohl, 1997:40 (in Sphecid Fauna of Western Europe); Dollfuss, Gusenleitner, and Bregant, 1998:509 (Austria: summary of collecting records from Burgenland); Nazarova, 1998:39 (Tajikistan: Tigrovaya Balka Nature Reserve); Gayubo, García, Torres, and González, 1999:89 (Spain: Soria Province); Generani, Pagliano, Scaramozzino, and Strumia, 1999:79 (Italy: Toscana: Isola di Montecristo); Salzmänn-Wandeler and Rezbanyai-Reser, 1999:101 (Switzerland: Tessin: Monte Generoso); Giachino, Grosso, Marchetti, Pagliano, Scaramozzino, and Vailati, 2000:104 (Greece); Ljubomirov, 2000:7 (Bulgaria, specimens in N. Nedelkov collection); Shkuratov, 2000:55 (Russia: Rostov Oblast': Vëshenskaya village area at 49°37'N 41°45'E); Wiśniowski, 2000:161 (Poland: Bieszczady Mts.); Zettel, 2000:23 (Austria: Kirchberg am Wechsel, Mödling, Wien); Ivanov and Ljubomirov, 2001:210 (Bulgaria: Kresna Gorge area at 41°48'N 23°10'E); Kazenas, 2001b:13 (in checklist of Sphecidae of Kazakhstan and Central Asia), 70 (review of nesting behavior); Kazenas and Esenbekova, 2001:133 (Kazakhstan: Almatinskiy Nature Reserve); Mader, 2001:99 (potential migration routes into Germany); Ohl et al., 2001:142 (recorded from Germany but not occurring there); Zettel, Gross, and Mazzucco, 2001:66 (Austria: Wien); Kazenas, 2002a:24 (geographic distribution, collecting localities in Kazakhstan); Shkuratov, 2002b:139 (Russia: Rostov Oblast': Rostovskiy Nature Reserve at 46°27'N 42°41'E); Shlyakhtenok and Skibinska, 2002:32 (Belarus: no specific locality); Carrière, 2003:419 (France: Hérault: Saint-Michel de Bagnas, coexistence with *Sceliphron caementarium* and *spirifex*); Generani, Pagliano, Scaramozzino, and Strumia, 2003:64 (Italy: Arcipelago Toscano); Pagliano, 2003b:130 (Italy: Island of Lampedusa); Schmid-Egger, 2003:757 (Italy: Sicilia: Castelammare, Ragusa); Wiśniowski, 2004:38 and 59 (in checklist of Polish Sphecidae); Gülmez and Tüzün, 2005:43 (Turkey: Ankara Province); Gayubo and Özbek, 2005:4 (Turkey: many localities); Jacobs, 2005:438 (Bulgaria); Schmid-Egger, 2005:10 (in key to European and Mediterranean *Sceliphron*), 14 (recognition, color, distribution).

Sphex flavipes Christ, 1791:... (♀ only, ♂ = *Sceliphron spirifex*), junior primary homonym of *Sphex flavipes* Fabricius, 1782.

Pepsis pensilis Illiger 1807b:94, ♀, ♂ Syntypes: Italy: no specific locality (destroyed). Synonymized with ... *destillatorium* by ... – **As *Pelopaeus pensilis***: Vander Linden, 1827:366 (synonymy, southern Europe); Klug *in* Waltl, 1835:88 (in list of Hymenoptera of Andalusia); Lepeletier de Saint Fargeau, 1845:306 (revision, as *pensilis* Latreille); Lucas, 1849:273 (Algeria: Alger, Bône, La Calle, Milah, Oran); Belke, 1853:433 (Ukraine: Kamieniec Podolski); F. Smith, 1856:228 (listed); Belke, 1859:71 (Ukraine: Kamieniec Podolski); Sichel, 1861:751 (Italy: Sicilia); A. Costa, 1867b:75 and 1867c:19 (in revision of Italian Sphecidae); Kirchner, 1867:217 (in catalog of European Hymenoptera); Palma, 1867:38 (Italy: Sicilia settentrionale); Marquet, 1875:207 (France: Haute-Garonne: Toulouse, and Hérault, Cette, now Sète); Lucas, 1877a: XCII (nest structures, description of larva); Girard, 1879:972 (morphology and habits); A. Costa, 1883a:57 (Italy: Sardegna, as *pensilis* Latreille); De Stefani Perez, 1889:269 (in key to Sicilian *Sceliphron*); Ed. André, 1888:105 (in revision of Sphecidae of Europe and Algeria), 1888:5* (bibliographic references); A. Costa, 1893b:5 (Tunisia, as *pensilis* Latreille); Medina, 1894a:259 (Spain); De Stefani Perez, 1895:226 (in catalog of Sicilian Hymenoptera); Medina, 1896:104 (Spain: Alcalá de Guadaíra), 1898:153 (Portugal: Mamede); Antiga and Bofill, 1904:3 (Spain: Cataluña Province); Casolari and Casolari Moreno, 1980:101 (specimens in M. Spinola collection). **As *Pelopaeus destillatorius* var. *pensile***: Coulon, 1925:115 (Italy: Sicilia); Guiglia, 1948c:200 (Italy: Sardegna: Villasalto). – **As *Sceliphron pensilis***: E. Saunders, 1904c:605 (Spain: Mayorca), 637 (France: Cerbère; Spain); Mantero, 1905:67 (Italy: Toscana: Isola del Giglio); Dusmet y Alonso, 1906:7 (Spain); Ferton, 1908:562 (nesting habits); Morice, 1911:71 (Algeria: Biskra); Dusmet y Alonso, 1915:86 (Spain: Aragón); Berland, 1921:533 (Greece, correctly spelled *pensile*). – **As *Sceliphron destillatorium* ab. *pensile***: Maidl, 1933b:121 (Morocco). – **As *Sceliphron destillatorium* var. *pensilis***: Dalla Torre, 1897:383 (new status, in catalog of world Hymenoptera); Berland, 1925d:43 (in Sphecid Fauna of France);

Guiglia, 1938b:9 (Italy: Sardegna); Giner Mari, 1943a:63 (in Sphecid Fauna of Spain); Giordani Soika, 1944:13 (Italy: Sicilia: Falcone, FiumetortoMessina); Guiglia, 1944b:9 (Italy); Nouvel and Ribaut, 1958:9 (France: Pyrénées-Orientales: Banyuls-sur-Mer area). – **As *Sceliphron destillatorium pensile***: W. Schulz, 1904b:92 (Czechoslovakia); Nadig, 1934:33 (France: Corse: Cap Corse; Italy: Sardegna: Aritzo, Mandas).

Pelopoeus sardonius Lepeletier de Saint Fargeau, 1845:308, ♀ (as *Sardonius*, incorrect original capitalization). Holotype or syntypes: ♀, Italy: Sardinia: no specific locality (depository?). Synonymized with ... *destillatorium* by ... – F. Smith, 1856:228 (listed); Kirchner, 1867:217 (in catalog of European Hymenoptera); Casolari and Casolari Moreno, 1980:101 (specimens in M. Spinola collection). – **As *Sceliphron sordonium***: Dalla Torre, 1897:389 (new combination, in catalog of world Hymenoptera).

Pelopoeus sardous Caruccio, 1872:275. Emendation of *Pelopoeus sardonius*.

Pelopoeus pensilis var. *trinacriensis* De Stefani Perez, 1889:269, sex not indicated. Syntypes: Italy: Sicily: no specific locality (depository?). Synonymized with ... *destillatorium* by ... – **As *Sceliphron destillatorium* var. *trinacriense***: Dalla Torre, 1897:384 (new combination, in catalog of world Hymenoptera); De Stefani Perez, 1895:226 (in catalog of Sicilian Hymenoptera). – **As *Sceliphron pensilis* var. *trinacriense***: Mantero, 1905:68 (Italy: Toscana: Isola del Giglio).

11. *fasciatum* (Lepeletier de Saint Fargeau)

Pelopaeus fasciatus Lepeletier de Saint Fargeau, 1845:315, ♀. Holotype or syntypes: ♀, origin unknown (originally Ser-ville coll., now M. Spinola coll.). – F. Smith, 1856:234 (listed); Cresson, 1863:319 (in catalog of North American Hymenoptera); de Saussure, 1867:33 (Antilles, redescription); Ashmead, 1896b:31 (Bahama Islands); Bradley, 1957:40 (Lepeletier's type in Turin); Casolari and Casolari Moreno, 1980:102 (specimens in M. Spinola collection). – **As *Sceliphron fasciatum***: Dalla Torre, 1897:384 (new combination, in catalog of world Hymenoptera); Ashmead, 1900:229 (Lesser Antilles: St. Vincent Island), 308 (in checklist of Caribbean Hymenoptera); W. Schulz, 1903:470 (Haiti, description of ♂); nec Porter, 1926:16 (= *Sceliphron argentifrons*); Holland, 1917:294 (Cuba: Isla de Pinos, now Isla de la Juventud: Los Indios and Nueva Gerona); Ogilvie, 1928:50 (Bermuda); van der Vecht and van Breugel, 1968:228 (revision); R. Bohart and Menke, 1976:105 (listed); Simon Thomas, 1984:96 (Caribbean: St. Martin and Dominica Islands); Amarante, 2002:71 (in catalog of Neotropical Sphecidae).

12. *fervens* (F. Smith)

Pelopoeus fervens F. Smith, 1858a:101, ♀. Lectotype: ♀, Malaysia: Sarawak: no specific locality (OUM), designated by Hensen, 1987:242. – Maindron, 1878:397 (in checklist of *Pelopaeus* of India and Indian Archipelago); Cameron, 1889c:101 (listed). – **As *Sceliphron fervens***: Dalla Torre, 1897:385 (new combination, in catalog of world Hymenoptera); R. Turner, 1912a:196 (new combination; New Guinea: Mimika River); R. Turner in R. Turner, Meade-Waldo, and Morley, 1915:3 (New Guinea: Mimika River); Kohl, 1918:130 (in revision of world *Sceliphron*); R. Bohart and Menke, 1976:106 (listed); Hensen, 1987:242 (revision; s. Thailand, Malaysia, Sumatra, Bangka, w. Java, Borneo, Palawan).

13. *fistularium* (Dahlbom)

Pelopaeus fistularius Dahlbom, 1843:23, ♀, ♂ (authorship attributed to Illiger). Syntypes: South Africa: Cape Town area; and Brazil: no specific locality (Lund). – Dahlbom, 1845:434 (in key, America); F. Smith, 1856:233 (listed); Taschenberg, 1869:428 (Brazil, variation); A. Costa, 1862a:17 (specimen from Brazil in Museo Zoologico di Napoli). – **As *Sceliphron fistularium***: Dalla Torre, 1897:385 (in catalog of world Hymenoptera, as *fistulare*); W. Fox, 1897b:374 (Brazil: Chapada, Maruru, and Pedra Branca; as *fistulare*), 1899:199 (Brazil: Rio Grande do Sul, as *fistulare*); Strand, 1910a:127 (Paraguay, as *fistulare*); Bertoni, 1911:132 (nest structure); Strand, 1912:281 (Paraguay, nest structure, as *fistulare*); Bodkin, 1918:314 (British Guiana, nesting habits, as *fistulare*); Kohl, 1918:97 (in revision of world *Sceliphron*); B. Porter, 1926:14 (in revision of North American *Sceliphron*, as *fistulare*); Cheesman, 1929:150 (Colombia: Island of Gorgona, as *fistulare*); Rau, 1933:160 (Pasnama: Barro Colorado Island, nest, prey, egg deposited on first spider, as *fistulare*); Richards, 1937a:105 (Guyana, as *fistulare*); Soukup, 1943:265 (Peru); van der Vecht and van Breugel, 1968:252 (revision); R. Bohart and Menke, 1976:105 (listed); Fritz and Genise, 1980 (75 (characteristic of nest cells); Nascimento

and Overall, 1980:10 (Brazil); Freeman, 1982:343 (Trinidad, distribution and population dynamics); Callan, 1990b:19 (in checklist of Trinidad Sphecidae); Lopez, 1994:15 (redescription, prey); Camillo, 2002:127 (nests, sex ratio, mortality); Amarante, 2002:72 (in catalog of Neotropical Sphecidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:670 (in checklist of Mexican Sphecidae); Starr and Hook, 2003:22 (in catalog of Aculeata of Trinidad, West Indies).

Pelopoeus histrio Lepeletier de Saint Fargeau, 1845:316, ♀, ♂. Lectotype: ♂, French Guayana: Cayenne (Torino), designated by Menke in Bohart and Menke, 1976:105. Synonymized with *Sceliphron fistularium* by Kohl, 1918:97. – Erichson, 1849:589 (British Guayana); de Saussure, 1867:32 (South America, redescription); Cameron, 1988a:25 (Mexico, Guatemala); Casolari and Casolari Moreno, 1980:102 (specimens in M. Spinola collection). – **As *Sceliphron histrio***: W. Fox, 1895c:265 (Mexico: Baja California); Cameron, 1912a:426 (Guayana).

Pelopoeus bimaculatus Lepeletier de Saint Fargeau, 1845:317, ♀. Holotype or syntypes: ♀, French Guayana: Cayenne (originally Serville coll., now Turin). Synonymized with *Sceliphron fistularium* by Kohl, 1918:97. (synonymy confirmed by Menke in Bohart and Menke, 1976:105), with *Sceliphron figulus* by Porter, 1926:..., and with *Sceliphron asiaticum* by van der Vecht and van Breugel, 1968:226. – F. Smith, 1856:233 (listed); A. Costa, 1864a:60 (one specimen from Cayenne, French Guayana, in Museo Zoologico di Napoli), 1864b:112 (two specimens from Montevideo, Uruguay, in Museo Zoologico di Napoli); Casolari and Casolari Moreno, 1980:101 (specimens in M. Spinola collection). – **As *Sceliphron fistulare* var. *bimaculatum***: Dalla Torre, 1897:385 (new combination, new status, in catalog of world Hymenoptera).

14. *formosum* (F. Smith)

Pelopaeus formosus F. Smith, 1856:230, ♀. Lectotype: ♀, Australia: Port Essington (BMNH), designated by Hensen, 1987:258. – Froggatt, 1892:209 (in catalog of Australian Hymenoptera). – **As *Sceliphron formosum***: nec Bingham, 1897:239 (= *Sceliphron deforme tibiale*); Dalla Torre, 1897:385 (new combination, in catalog of world Hymenoptera); nec Paiva, 1907:15 (= *Sceliphron deforme tibiale*); Kohl, 1918:126 (in revision of world *Sceliphron*); R. Bohart and Menke, 1976:106 (listed); Callan, 1981b:82 (Australia; parasite: *Macrosiagon semipunctatum* (Lea), a rhipiphorid); Naumann, 1983b:134 (Australia; in key); Cardale, 1985:222 (in catalog of Australian Sphecidae); Hensen, 1987:256 (revision), 258 (as *formosum formosum*; s. New Guinea, e. Australia); Callan, 1988:78 (life history); Harris, 1992:16 (in revision of species introduced to New Zealand); Naumann, 1993:182 (Australia: Queensland: Heathlands area in Cape York); Pagliano, 2003a:505 (Australia: Northern Territory).

Sceliphron papuanum Cameron, 1906d:221, ♀. Holotype or syntypes: ♀, Indonesia: Irian Jaya (New Guinea): Merauke (Zool. Mus. Amsterdam). Synonymized with *Sceliphron formosum* by van der Vecht in Bohart and Menke, 1976:106. – Kohl, 1918:138 (original description copied).

ssp. *bruijnii* Maindron

Pelopaeus bruijnii Maindron, 1878:394, ♀ (as *Bruijnii*, incorrect original capitalization). Lectotype: ♀, New Guinea: Dorey, now Manokwari (MNHN), designated by Hensen, 1987:256. – Maindron, 1878:396 (in checklist of *Pelopaeus* of India and Indian Archipelago). – W. F. Kirby, 1880, Zool. Records (as *bruininii*). – **As *Sceliphron bruijnii***: Dalla Torre, 1897:379 (new combination, in catalog of world Hymenoptera); Cameron, 1906a:56 (New Guinea: Irian Jaya: Manokwari, as *Bruynii*), 1906d:221 (New Guinea: Merauke: Etna Bay); Kohl, 1918:134 (original description copied); van der Vecht and van Breugel, 1968:fig.2-4 (male genitalia); R. Bohart and Menke, 1976:106 (listed). – **As *Sceliphron formosum bruijnii***: Hensen, 1987:256 (new status; revision: New Guinea).

Sceliphron fallax Kohl, 1918:129, ♀, ♂. Lectotype: ♀, New Guinea: Astrolabe Bay: Stephansort (NHMW), designated by Hensen, 1987:256. Synonymized with *Sceliphron bruijnii* by Bohart and Menke, 1976:106 (or some earlier author?). – Dollfuss, 1989:12 (lectotype in NHMW).

ssp. ocellare Kohl

Sceliphron ocellare Kohl, 1918:128, ♀. – Syntypes: ♀, Papua New Guinea: Bismarck Archipelago: Ralum (ZMHU) and Kinigunang (? NHMW). – R. Bohart and Menke, 1976:106 (listed); Tano, Nozaka, Kurokawa, and Murota, 1994:57 (Philippines). – **As *Sceliphron formosum ocellare***: Hensen, 1987:258 (new status; revision; Papua New Guinea: Admiralty Islands, New Britain, New Ireland, Solomon Islands).

15. fossuliferum (Gribodo)

Pelopaeus fossuliferus Gribodo, 1895:110, ♀. Syntypes: Mozambique: Rikatla (Mus. Genova). – **As *Sceliphron fossuliferum***: Kohl, 1909:370 (Tanzania: Pemba Island), 1918:135 (original description copied); Arnold, 1952:480 (good species, Mozambique, redescription); Leclercq, 1955h:58 (bibliographic references); van der Vecht and van Breugel, 1968:214 (revision), 215 (revision, as *fossuliferum fossuliferum*); R. Bohart and Menke, 1976:105 (listed); Dollfuss, 1990:122 (Central African Republic).

As *Sceliphron quartinae* (corrected to *Sceliphron fossuliferum* by van der Vecht and van Breugel, 1968:215 if not indicated otherwise): Brauns, 1911:119 (South Africa, nest structure, nocturnal rest sites); Mayer and von Schulthess, 1922:364 (nest); von Schulthess, 1926:21 (...); Arnold, 1928:245 (♀ only, revision), corrected to *Sceliphron decipiens* by Arnold, 1952:482; Schouteden, 1930:95 (Zaire); Arnold, 1943:76 (Zaire); Leclercq, 1959:59 (Zaire, Ethiopia, South Africa; as *quartinae quartinae*). Also: Leclercq, 1955h:59 (locality records), corrected to *Sceliphron voeltzkovii decipiens* by Leclercq, 1961b:52.

Sceliphron decipiens Arnold, 1952:482, ♀. Holotype: ♀, Uganda: Unyoro (SAMC). Synonymized with *Sceliphron fossuliferum* by van der Vecht and van Breugel, 1968:215. – **As *Sceliphron voeltzkovii decipiens***: Leclercq, 1961b:52 (Guinea, Tanzania, Zaire); Diniz, 1964c:107 (Angola: Lunda: Lago Calundo); Leclercq, 1969:1948 (Congo Brazzaville, as *voeltzkovi* f. *decipiens*).

ssp. complex Kohl

Sceliphron complex Kohl, 1918:107, ♀. Holotype: ♀, Gabon: Chutes de Samlia River N Gamio (NHMW). – Arnold, 1928b:246 (revision), 1930:16 (in checklist of Afrotropical Sphecidae); Schouteden, 1930:94 (Zaire); Berland, 1952b:276 (boundary of Ivory Coast, Guinea, and Liberia: Mt. Nimba); Leclercq, 1955:59 (as synonym of *Sceliphron quartinae voeltzkovii*). – **As *Sceliphron fossuliferum complex***: van der Vecht and van Breugel, 1968:216 (new status, revision); R. Bohart and Menke, 1976:105 (listed); Dollfuss, 1989:12 (type material in NHMW).

ssp. voeltzkovii Kohl

Sceliphron voeltzkovii Kohl, 1909:370, ♀ (as *Voeltzkovii*, incorrect original capitalization). Holotype: ♀, Tanzania: Pemba Island: Chake-Chake (ZMHU or SIF). – Leclercq, 1961b:51 (discussion of nomenclature, as *voeltzkovii*), 52 (Zaire, as *voeltzkovii voeltzkovii*); Diniz, 1954c:107 (Angola: Lunda: Dundo). – **As *Sceliphron quartinae* var. *voeltzkovii***: Kohl, 1918:106 (new status, revision, as *voeltzkovii*); Arnold, 1928:246 (comparison with *Sceliphron complex*). – **As *Sceliphron quartinae voeltzkovii***: Leclercq, 1955h:59 (Zaire and Rwanda: locality records, specimens from Cameroon = *quartinae*). – **As *Sceliphron fossuliferum voeltzkovii***: van der Vecht and van Breugel, 1968:216 (revision); R. Bohart and Menke, 1976:105 (listed); Rodgers and Homewood, 1982:233 (Tanzania: Usambara Mountains).

Sceliphron masaicum R. Turner, 1919c:393, ♀. Lectotype: ♀, Kenya: Ngare Narok (BMNH), designated by van der Vecht and van Breugel, 1968:216. Synonymized with *Sceliphron complex* by Arnold, 1928b:246, and with *Sceliphron fossuliferum voeltzkovii* by van der Vecht and van Breugel, 1968:216.

16. funestum Kohl

Sceliphron funestum Kohl, 1918:121, ♀. Holotype: ♀, Turkey: Smyrna (NHMW). – Bytinski-Salz, 1956:224 (Turkey: Aydin; misspelled *funereum*); de Beaumont, 1965a:17 (Greece), 1967a:277 (Turkey); R. Bohart and Menke, 1976:106 (listed); Hensen, 1987:226 (revision; Greece, Turkey); Dollfuss, 1989:12 (type material in NHMW); Gayubo and Özbek, 2005:4 (Turkey: Antalya: Arapsuyu, Manavgat; Ayдын: Çine; Muđla: Köyzceđiz); Schmid-Egger, 2005:9 (in key to European and Mediterranean *Sceliphron*), 13 (recognition, color, distribution).

17. *fuscum* Klug

Sphex hemipterus Fabricius, 1798:244, sex not indicated, junior primary homonym of *Sphex hemipterus* Scopoli, 1772.

Lectotype: ♂, Isle de France (MNHN, coll. Bosc), designated by van der Vecht, 1961a:43 (use of the word “type”). – Jurine, 1807:128 (listed). – **As *Pelopaeus hemipterus***: Fabricius, 1804:204 (new combination, redescription); Dahlbom, 1843:23 (in revision of Sphecidae and Pompilidae), 1845: 1845:XX (study of specimens in collection Fabricius), 434 (in key); Lepeletier de Saint Fargeau, 1845:311 (revision, recorded from France); F. Smith, 1856:229 (listed); Casolari and Casolari Moreno, 1980:101 (specimens in M. Spinola collection). – **As *Sceliphron hemipterum***: de Saussure, 1892:440 (Madagascar); Pérez, 1895b:210 (Seychelles Islands); Dalla Torre, 1897:386 (in catalog of world Hymenoptera); Friese, 1900:267 (Madagascar: Nosy-Be); Cameron, 1907e:75 (Seychelles Islands; redescription); Kohl, 1909:371 (Madagascar); Turner, 1911b:369 (Seychelles Islands); Bordage, 1912:45 (Réunion Island: use of provisioned nests by *Pison argentatum*), 68 (Réunion Island: life history); R. Turner, 1919b:238 (New Caledonia); Kohl, 1918:108 (in revision of world *Sceliphron*); Friederichs, 1918:30 (life history); von Schulthess in Friederichs, 1918:48 (Madagascar: Antananarivo, Diego Suarez); Arnold, 1945:86 (Madagascar); Williams, 1945:438 (New Caledonia); Vesey-Fitzgerald, 1950:75 (Seychelles Islands; nesting behavior); Leclercq, 1953b:211 (Madagascar); Vesey-Fitzgerald, 1956b:362 (Seychelles); Leclercq, 1961d:106 (Madagascar); van der Vecht and van Breugel, 1968:237 (revision), 254 (*hemipterum* is invalid junior homonym).

Sceliphron fuscum Klug, 1801:566, sex not indicated. Holotype or syntypes: “Isle de France” (ZMHU). – Strand, 1915:91 (as synonym of *Sceliphron coromandelicum*; authorship attributed to Lepeletier); Kohl, 1918:135 (Lepeletier’s description copied); van der Vecht and van Breugel, 1968:237 (as synonym of *Sceliphron hemipterum*); R. Bohart and Menke, 1976:105 (listed); Madl, Matyot, and Schödl, 1996:831 (Seychelles Islands); Madl, 1997:820 (Madagascar: Nosy Boraha Island), 821 (in checklist of Nosy Boraha Sphecidae); Pulawski, 2003b:795 (in checklist of Malagasy Sphecidae).

Sceliphron quodi Vachal, 1907:144, ♀, ♂. Syntypes: New Caledonia: no specific locality (MNHN). Synonymized with *Sceliphron hemipterum* by van der Vecht and van Breugel, 1968:237. – Vachal, 1908:23 (New Caledonia); Kohl, 1918:138 (original description copied).

18. *intrudens* (F. Smith)

Pelopeus intrudens F. Smith, 1858b:15, ♀, ♂. Lectotype: ♀, Indonesia: Sulawesi: no specific locality (BMNH), designated by van der Vecht and van Breugel, 1968:212. – Maindron, 1878:397 (in checklist of *Pelopaeus* of India and Indian Archipelago). – **As *Sceliphron intrudens***: Bingham, 1897:236 (redescription); Dalla Torre, 1897:387 (new combination, in catalog of world Hymenoptera); Kohl, 1918:110 (in revision of world *Sceliphron*); nec Williams, 1919d:120 (= *Sceliphron javanum aemulum*); Iwata and Yoshikawa, 1961:398 (Thailand); van der Vecht and van Breugel, 1968:211 (revision); R. Bohart and Menke, 1976:105 (listed).

19. *isaaci* Jha and Farooqi

Sceliphron isaaci Jha and Farooqi, 1995:13, ♀, ♂. Holotype: ♀, India: Andaman Islands: Port Blair: North Bay (depository?).

20. *jamaicensis* (Fabricius)

Sphex jamaicensis Fabricius, 1775:347. Holotype or syntypes: Jamaica (lost: van der Vecht, 1961a:43). – Fabricius, 1781:444 (... as *iamaicensis*), 1787:275 (... as *iamaicensis*), 1793:203 (...). – **As *Pelopoeus jamaicensis***: Fabricius, 1804:204 (new combination, redescription); F. Smith, 1856:234 (listed). – **As *Pelopeus* [sic] *caementarius* var. *jamaicensis***: de Saussure, 1867:30 (new status). – **As *Sceliphron caementarium* var. *jamaicense***: Dalla Torre, 1897:380 (new combination, in catalog of world Hymenoptera). – **As *Sceliphron jamaicense***: Kohl, 1918:114 (in revision of world *Sceliphron*); B. Porter, 1926:17 (in revision of North American *Sceliphron*, as *jamicensis*); Krombein, 1953c:17 (Bahamas: South Bimini Island); van der Vecht and van Breugel, 1968:229 (revision, as *jamaicense jamaicense*), 254 (*jamaicense* is invalid junior homonym); Vardy, 1976:88 (*jamaicense* is the valid name, and never was a junior homo-

nym of *Vespa jamaicensis* Drury in *Sphex*); Elliott, Kurczewski, Claflin, and Salbert, 1979:357 (Bahama Islands: San Salvador Island); Genaro, 1996a:239 (nest parasites).

Pelopoeus annulatus Cresson, 1865a:135, ♀, ♂ (as Klug's MS name). Lectotype: ♀, Cuba: no specific locality (ANSP), designated by Cresson, 1916:93. Synonymized with ... *jamaicensis* by... – de Saussure, 1867:31 (as synonym of *Pelopoeus* [sic] *vindex*). – **As *Ammophila annulatus***: Ashmead, 1900:308 (in checklist of Caribbean Hymenoptera). – **As *Sceliphron figulus* var. *annulatum***: Dalla Torre, 1897:384 (new combination, new status, in catalog of world Hymenoptera). – **As *Sceliphron annulatum***: Ashmead, 1900:308 (in checklist of Caribbean Hymenoptera, listed for the second time under a different generic name); van der Vecht and van Breugel, 1968:254 (*annulatum* is the valid name for *jamaicense*); Alayo Dalmau, 1973:182 (in catalog of Cuban Hymenoptera), 1976:10 (in key to Cuban *Sceliphron*), 26 (in checklist of Cuban Sphecidae); R. Bohart and Menke, 1976:105 (listed); Alayo Soto, 1982:5 (life history); Portuendo and Fernández, 2004:135 (Cuba: Sierra Maestra and Nipe-Sagua-Baracoa mountains).

ssp. *lucae* de Saussure

Pelopaeus lucae de Saussure, 1867:30, ♀, ♂. Lectotype: ♂, Mexico: Baja California Sur: Cabo San Lucas (Genève), designated by Menke in Bohart and Menke, 1976:105. – **As *Sceliphron lucae***: W. Fox, 1893d:9 (Mexico: Baja California), 1895c:265 (Mexico: Baja California); Dalla Torre, 1897:387 (as new combination, in catalog of world Hymenoptera); Porter, 1926:19 (revision); Murray in Muesebeck et al., 1951:978 (in catalog of North American Hymenoptera); R. Bohart and Menke, 1963:117 (in revision of Nearctic Sceliphriini). – **As *Sceliphron annulatum lucae***: Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:670 (in checklist of Mexican Sphecidae). – **As *Sceliphron jamaicense lucae***: van der Vecht and van Breugel, 1968:230 (new status, revision); R. Bohart and Menke, 1976:105 (listed); Jiménez et al., 1992:169 (prey spectrum).

21. *javanum* (Lepeletier de Saint Fargeau)

Pelopaeus javanus Lepeletier de Saint Fargeau, 1845:309, ♀ (as *Javanus*, incorrect original capitalization). Holotype: ♀, Indonesia: Java: no specific locality (originally Serville coll., now?). – nec F. Smith, 1856:101 (= *Sceliphron javanum benignum*); F. Smith, 1856:231 (listed), 1858a:101 (Malaysia: Sarawak); Radoszkowski, 1871:196 (China: Zheizhang Province: Ning-Po); Maindron, 1878:396 (nest attributed to this species found in Java), 397 (in checklist of *Pelopaeus* of India and Indian Archipelago); Cameron, 1889c:101 (listed), 104 (redescription); Bingham, 1896a:437 (Sri Lanka: Pundaluoya); Casolari and Casolari Moreno, 1980:102 (specimens in M. Spinola collection). – **As *Sceliphron javanum***: Bingham, 1897:239 (redescription); Dalla Torre, 1897:386 (new combination, in catalog of world Hymenoptera); Cameron, 1901a:25 (Malaysia: Singora); Bingham, 1905:45 (Malaysia: Biserat, Jalor); Cameron, 1905k:65 (Java); Strand, 1915:92 (India: Darjeeling); Kohl, 1918:92 (in revision of world *Sceliphron*); Menzel, 1928:265 (life history); Bradley, 1957:39 (Lepeletier's type in Turin); Iwata, 1964b:362 (Cambodia, Thailand; summary of biological information); Naito and Iwata, 1964:506 (Thailand, spider prey); van der Vecht and van Breugel, 1968:239 (revision), 248 (as *javanum javanum*, revision); R. Bohart and Menke, 1976:105 (listed); Ohl and Linde, 2003:149 (number of ovarioles).

ssp. *javanum aemulum* Kohl

Sceliphron aemulum Kohl, 1918:94, ♀. Syntypes: ♀, Philippines: Mindanao: no specific locality (NHMW). – Baltazar, 1966:346 (in catalog of Hymenoptera of Philippines). – **As *Sceliphron javanum aemulum***: van der Vecht and van Breugel, 1968:247 (new status, revision); R. Bohart and Menke, 1976:106 (listed); Dollfuss, 1989:12 (type material in NHMW); Tano, Nozaka, Kurokawa, and Murota, 1994:56 (Philippines).

As *Sceliphron intrudens*: F. Williams, 1919d:120 Philippines: Luzon: Los Baños: nesting behavior), corrected to *Sceliphron javanum aemulum* by van der Vecht and van Breugel, 1968:247.

Sceliphron luzonensis Rohwer, 1922:674, ♀. Holotype: ♀, Philippines: Luzon: Laguna: Mt. Makiling (USNM). Synonymized with ... – Baltazar, 1966:346 (in catalog of Hymenoptera of Philippines).

ssp. javanum benignum (F. Smith)

Pelopoëus benignus F. Smith, 1858b:15, ♀. Syntypes: Sarawak, Borneo (OXUM). – Maindron, 1878:397 (in checklist of *Pelopaëus* of India and Indian Archipelago); Cameron, 1889c:101 (listed). – **As *Sceliphron benignum***: Dalla Torre, 1897:379 (new combination, in catalog of world Hymenoptera); – **As *Sceliphron javanum* var. *benignum***: Strand, 1915:92 (Sri Lanka, redescription); Kohl, 1918:93 (in revision of world *Sceliphron*). – **As *Sceliphron javanum benignum***: van der Vecht and van Breugel, 1968:247 (new status, revision); R. Bohart and Menke, 1976:105 (listed).

Sceliphron sintangense Strand, 1915:94, ♀, ♂. Syntypes: Borneo: Sintang (DEI). Synonymized with *Sceliphron javanum benignum* by ... – Oehlke and Wudowenz, 1974:425 (four syntypes in DEI).

As *Pelopoëus javanus*: Smith, 1856:101 (Sarawak, Borneo), corrected to *Sceliphron javanum benignum* by van der Vecht and van Breugel, 1968:246.

ssp. javanum chinense van Breugel

Sceliphron javanum chinense van Breugel in van der Vecht and van Breugel, 1968:244, ♀, ♂. Holotype: ♀, China: Hainan Island: Fan Heang (MCZ). – Paratypes: China: Canaton; other specimens: s. India, Vietnam, Laos. – R. Bohart and Menke, 1976:106 (listed); Li, 1995:88 (in key to Chinese Sceliphronini, as *chinensis*); Wu and Zhou, 1996:28 (revision in Economic Insect Fauna of China).

ssp. javanum laboriosum (F. Smith)

Pelopoëus laboriosus F. Smith, 1859a:159, ♀. Holotype or syntypes: ♀, Indonesia: Maluku: Aru Island (OXUM). – Maindron, 1878:396 (in checklist of *Pelopaëus* of India and Indian Archipelago). – **As *Sceliphron laboriosum***: Dalla Torre, 1897:387 (new combination, in catalog of world Hymenoptera); Kohl, 1918:136 (original description copied). – **As *Sceliphron javanum laboriosum***: van der Vecht and van Breugel, 1968:249 (new status, revision); R. Bohart and Menke, 1976:105 (listed).

Sceliphron lorentzi Cameron, 1911:201, ♀. Holotype: ♀, New Guinea: Lorentz River: Bivak Island (Amsterdam). Synonymized with *Sceliphron javanum laboriosum* by van der Vecht and van Breugel, 1968:249. – Kohl, 1918:137 (original description copied).

ssp. javanum nalandicum Strand

As *Pelopoëus spinolae*: F. Smith, 1856:231 (Bombay, Sri Lanka); Bingham, 1896a:438 (references); and Cameron, 1889c:102 (listed); corrected to *Sceliphron javanum* var. *nalandicum* by van der Vecht and van Breugel, 1968:244; Bingham, 1897:237 (redescription, Sri Lanka, India), corrected to *Sceliphron javanum* var. *nalandicum* by Kohl, 1918:92; Casolari and Casolari Moreno, 1980:101 (specimens in M. Spinola).

Sceliphron javanum var. *nalandicum* Strand, 1915:93, ♀. Syntypes: ♀, Sri Lanka: Nalanda and Kandy (DEI). – Kohl, 1918:92, 93 (...); von Schulthess, 1935:304 (Indonesia: Flores: Endeh); . – **As *Sceliphron javanum nalandicum***: van der Vecht and van Breugel, 1968:244 (new status, reavision); R. Bohart and Menke, 1976:105 (listed).

ssp. javanum petiolare Kohl

Sceliphron petiolare Kohl, 1918:95, ♀. Holotype: ♀, Indonesia: Sumatra: Deli (ZMHU). – **As *Sceliphron javanum petiolare***: van der Vecht and van Breugel, 1968:246 (new status, revision); R. Bohart and Menke, 1976:106 (listed).

ssp. javanum tenggaræ van der Vecht

Sceliphron javanum tenggaræ van der Vecht, 1957c:369, ♀, ♂. Holotype: ♀, Indonesia: Flores: Labuan Badjo (RMNH). – van der Vecht and van Breugel, 1968:248 (revision); R. Bohart and Menke, 1976:106 (listed).

ssp. javanum timorensis van der Vecht

As *Pelopoëus spirifex*: F. Smith, 1856:34 (Indonesia) and as *Sceliphron spirifex*: F. Smith, 1871:360 (Timor), corrected to *Sceliphron javanum timorensis* by van der Vecht and van Breugel, 1968:249.

Sceliphron javanum timorensis van der Vecht, 1957c:369, ♀, ♂. Holotype: ♀, Indonesia: Timor: no specific locality (RMNH). – van der Vecht and van Breugel, 1968:249 (revision); R. Bohart and Menke, 1976:106 (listed).

22. *laetum* (F. Smith)

Pelopaeus laetus F. Smith, 1856:229, ♀, ♂. Lectotype: ♀, Australia: Macintyre River (BMNH), designated by van der Vecht and Breugel, 1968:251. – F. Smith, 1862:55 (Indonesia), 1863a:34 (Indonesia); A. Costa, 1864a:60 (two specimens from Adelaide, Australia, in Napoli Museum), 1864b:111 (specimen from Australia in Museo Zoologico di Napoli); Maindron, 1878:389 (nest structure), 391 (description of larva), 393 (description of pupa and cocoon), 394 (taxonomic history, occurring in Indonesia and Australia), 396 (in checklist of *Pelopaeus* of India and Indian Archipelago); H. Roth, 1885:318 (nest construction, prey, larva); Froggatt, 1892:209 (in catalog of Australian Hymenoptera). – **As *Sceliphron laetum***: Dalla Torre, 1897:387 (new combination, in catalog of world Hymenoptera); W. Schulz, 1905a:213 (Papua New Guinea: Finschhafen; other faunal records); Cameron, 1905k:65 (Java), 1906a:55 (New Guinea: Irian Jaya), 1906d:220 (New Guinea: Irian Jaya: Merauke); Strand, 1911b:231 (Indonesia: Aru: Terangan Island); Kohl, 1918:95 (in revision of world *Sceliphron*); von Schulthess, 1935:304 (Australia: Northern Territory: Kadarri); Krombein, 1949b:381 (in key to Sphecidae of Micronesia), 386 (Guam, Mariana Islands), 1950b:138 (Caroline Islands); van der Vecht and van Breugel, 1968:250 (revision), 251 (revision, as *laetum laetum*); R. Bohart and Menke, 1976:106 (listed); A. Smith, 1979:181 (population dynamics and mortality factors); Callan, 1980a:134 (record from New Zealand is erroneous; as *laetus*); Nakajima et alii, 1983:63 (biologically active amines in venom); Naumann, 1983b:134 (Australia; life history); Cardale, 1985:221 (in catalog of Australian Sphecidae); Harris, 1987:58 (accidental introduction of diapausing prepupae into New Zealand); M. Schneider, 1988:42 (nest); Harris, 1992:15 (in revision of species introduced to New Zealand); Early and Townsend, 1993:53 (New Zealand records); Naumann, 1993:182 (Australia: Queensland: Heathlands area in Cape York); Elgar and Jebb, 1999:147 (nest provisioning in Madang area, Papua New Guinea); Pagliano, 2003a:505 (Australia: eight localities).

Sceliphron laetum st. *cygnorum* R. Turner, 1910a:343, ♀. Syntypes: southwestern Australia: no specific locality (BMNH). Synonymized with *Sceliphron laetum* by van der Vecht and van Breugel, 1968:251.

ssp. *laetum maindroni* van der Vecht

Sceliphron laetum maindroni van der Vecht in van der Vecht and van Breugel, 1968:252, ♀, ♂. Holotype: ♀, Indonesia: Ternate Island: Bukonura (RMNH). – R. Bohart and Menke, 1976:105 (listed).

23. ? *leptogaster* Cameron

Sceliphron ? leptogaster Cameron, 1905m:227, ♂. South Africa: Cape Province: Dunbrody, 33°29'S 25°33'E (BMNH?). – Kohl, 1918:137 (original description copied); Leclercq, 1955h:63 (bibliographic references, species incertae sedis); R. Bohart and Menke, 1976:106 (may belong in Ammophilini).

24. *madraspatanum* (Fabricius)

Sphex madraspatanus Fabricius, 1781:445, sex not indicated (as *madraspatana*, incorrect original termination). Lectotype: ♂, India: Kerala: former Malabar District (BMNH, coll. Banks), designated by van der Vecht, 1961a:43 (use of word “type”). – Gmelin, 1790:2727 (... , as *maderospatana*); Lichtenstein, 1796:200 (in auction catalog); Jurine, 1807:128 (listed). – **As *Pelopaeus madraspatanus***: Fabricius, 1804:203 (new combination, redescription), Dahlbom, 1843:22 (in revision of Sphecidae and Pompilidae), 1845: 1845:XX (study of specimens in collection Fabricius), 434 (in key); Lepeletier de Saint Fargeau, 1845:310 (revision); F. Smith, 1856:231 (new combination, listed), 1858b:14 (Indonesia: Sulawesi), 1860b:123 (Indonesia: Moluccas: Amboina); Taschenberg, 1869:428 (Java); Horne, 1870:161 (life history), F. Smith, 1873a:191 (Japan: Hyogo); Maindron, 1878:397 (in checklist of *Pelopaeus* of India and Indian Archipelago); Cameron, 1889c:102 (listed), 103 (redescription); Radoszkowski, 1892:581 (male genitalia). – **As *Sceliphron madraspatanum***: Mocsáry, 1892:127 (Tibet: Yarkalo); Bingham, 1897:237 (redescription); Dalla Torre, 1897:387 (in catalog of world Hymenoptera); Cameron, 1899b:54 (comparison with *Sceliphron tibiale*), 1901a:25 (Malaysia: Singora); 1901d:55 (Maldives); Ashmead, 1904a:6 (Philippines: Laguna Province); Bingham, 1905:45 (Malaysia: 45); Cameron, 1905k:65 (Java); R. Brown, 1906:687 (in catalog of Philippine Hymenoptera); Paiva, 1907:15 (India: West Bengal: Siliguri; Nepal: Katmandu); Dutt, 1912:202 (nest, immature stages, parasites); Strand, 1913a:84 (Taiwan, as *madero-*

- spatanum*); Nurse, 1914:445 (India: Assam: Dibrugarh; as *madraspatanum*); R. Turner, 1917e:176 (status); Kohl, 1918:109 (in revision of world *Sceliphron*); nec Williams, 1919d:123 (= *Sceliphron madraspatanum conspicillatum*); Gennerich, 1922:40 (morphology; as *maderospatanum*); Rohwer, 1922:675 (previously recorded from Philippines); Dover, 1926:234 (China: Hong Kong); Matsumura and Uchida, 1926:40 (Okinawa); von Schulthess, 1935:304 (Indonesia: Java: Buitensorg, now Bogor; Bali); Yasumatsu, 1935b:35 (Japan: Ryukyu Archipelago: Ishigaki Island), 36 (Japan: Ryukyu Archipelago: Iriomote Island), 1935c:58 (Philippines: Basilan Island: Maloong); Ma, 1936a:470 (China: Szechwan: Kienwei), 1936b:67 (nesting habits); Yasumatsu, 1937a:127 (Botel Tobago Island SE Taiwan, now Lang Hsu), 1938e:345 (China: Nanking); Iwata, 1939b:169 (Taiwan; life history); nec Krombein, 1949b:381 and 387 (= *Sceliphron madraspatanum conspicillatum*); Harant and Leclercq, 1955:251 (France: Hérault: Palavas-les-Flots); Leclercq, 1955h:60 (bibliographic references); Morel, Nouvel, and Ribaut, 1956:337 (France: Département des Pyrénées-Orientales); de Beaumont, 1961b:272 (Afghanistan), 1961c:45 (Greece: Crete Island), 1961e:2 (Iraq); Iwata and Yoshikawa, 1961:398 (Thailand); Leclercq, 1961b:50 (Zaire); Tsuneki, 1962a:7 (Ryukyu Islands: Amami-Oshima Islands); Iwata, 1964b:361 (nesting behavior in Thailand); Tano, 1964:38 (Japan: Kyushu: Yakushima Island); de Beaumont, 1965a:17 (Greece); Baltazar, 1966:347 (in catalog of Hymenoptera of Philippines); Fukuda, 1968:26 (Japan); van der Vecht and van Breugel, 1968:199 (revision), 205 (revision, as *madraspatanum madraspatanum*); de Beaumont, 1967a:276 (Turkey); Tsuneki, 1967i:385 (Ryukyus), 1967j:5 (Taiwan); Haneda, 1968a:45 (Japan); T. Iida, 1969a:273 (description of mature larva); Tsuneki, 1969e:24 (Japan); Haneda, 1971b:31 (Taiwan); Yamada, 1971:34 (Japan: Aichi Prefecture); Murota, 1973a:101 (Ryukyu Islands: Amami Oshima Islands); Tsuneki, 1974b:590 (Thailand); Nambu, 1975b:70 (Japan: Saitama Pref.); Begum and Bose, 1976:26 (Bangladesh: Dakka); R. Bohart and Menke, 1976:106 (listed); Kazenas, 1978b:45 (in key to Sphecidae of Kazakhstan and Central Asia); Islamov, 1986:517 (Uzbekistan: Surkhandarya Oblast'); Begum, Bose, and Howlander, 1989:124 (life history in Bangladesh); Hua, 1989:116 (China); Early and Townsend, 1993:53 (adventive to New Zealand but not established there); Zhou and Wu, 1993a:670 (China: Hebei Province: Wuling Mountains, as *modraspatanum*); Jha and Farooqi, 1994:13 (description and illustration of male genitalia, as *madraspatanum madraspatanum*); Tano, Nozaka, Kurokawa, and Murota, 1994:57 (Philippines); Begum, Khan, and Bose, 1995:174 (Bangladesh: Dhaka University Campus); Li, 1995:88 (in key to Chinese Sceliphri); Wu and Zhou, 1996:28 (revision in Economic Insect Fauna of China, as *madraspatanum madraspatanum*); Yamane, Iku-dome, and Terayama, 1999:481 (in Identification Guide to Sphecidae of Nansei = Ryukyu Islands, Japan); Kazenas, 2001b:13 (in checklist of Sphecidae of Kazakhstan and Central Asia), 72 (review of nesting habits), 2002a:24 (geographic distribution, collecting localities in Kazakhstan); Ohl and Linde, 2003:149 (number of ovarioles); Gülmez and Tüzün, 2005:43 (Turkey: Ankara Province); Schmid-Egger, 2005:11 (in key to European and Mediterranean *Sceliphron*).
- ? *Sphex lugubris* Christ, 1791:306, ... "St. Domingo", junior primary homonym of *Sphex lugubris* Villers, 1789. – van der Vecht and van Breugel, 1968:205 (type locality probably erroneous, description agrees best with *Sceliphron madraspatanum*); Dalla Torre, 1897:379 (as synonym of *Sceliphron caementarium*). – **As *Sceliphron lugubre***: Dalla Torre, 1897:387 (new combination, listed); Ashmead, 1900:309 (in checklist of Caribbean Hymenoptera); W. Schulz, 1903:470 (unrecognizable species).
- Pelopoëus interruptus* Palisot de Beauvois, 1806:51, sex not indicated. Holotype or syntypes: origin unknown, but probably Asia (destroyed?). Synonymized with *Sceliphron maderospatanum* [sic] by Schulz, 1906:192. – **As *Sceliphron interruptum***: Dalla Torre, 1897:386 (new combination, in catalog of world Hymenoptera).
- Pelopoëus bilineatus* F. Smith, 1852a:47, ♀. Holotype or syntypes: ♀, India: Maharashtra: Bombay (BMNH). Synonymized with *Sceliphron madraspatanum* by ... – Horne, 1870:163 (life history); Cameron, 1889c:101 (listed), 103 (nesting sites). – **As *Sceliphron blineatum***: Bingham, 1897:238 (redescription); Dalla Torre, 1897:379 (new combination, in catalog of world Hymenoptera); Bingham, 1908:355 (India: Meerut); nec Dutt, 1912:221 (= *Sceliphron rectum pulchellum*).

Pelopoeus separatus F. Smith, 1852:47, ♀. Holotype or syntypes: ♀, India: Maharashtra: Bombay (BMNH). Synonymized with *Sceliphron madraspatanum* by ... [listed as synonym by Bingham, 1897:237]. – Cameron, 1889c:102 (listed). – **As *Sceliphron separatum***: Dalla Torre, 1897:389 (new combination, in catalog of world Hymenoptera).

ssp. andamanicum Kohl

Sceliphron madraspatanum var. *andamanicum* Kohl, 1918:109, ... Andaman Islands. – **As *Sceliphron madraspatanum andamanicum***: van der Vecht and van Breugel, 1968:208 (revision, Andaman and Nicobar Islands); R. Bohart and Menke, 1976:106 (listed).

ssp. conspicillatum A. Costa

Pelopoeus conspicillatus A. Costa, 1864:112, sex not indicated. Syntypes: Philippines: Luzon: no specific locality (NAPOLI). – Kohl, 1918:109 (as synonym of *Sceliphron madraspatanum*); Rohwer, 1921:675 (Philippines: Luzon, Leyte, Palawan). – **As *Sceliphron conspicillatum***: Dalla Torre, 1897:382 (new combination, in catalog of world Hymenoptera); Rohwer, 1922:675 (Philippines). – **As *Sceliphron madraspatanum* var. *conspicillatum***: Ashmead, 1904d:151 (Philippines); R. Brown, 1906:687 (in catalog of Philippine Hymenoptera). – **As *Sceliphron madraspatanum conspicillatum***: van der Vecht and van Breugel, 1968:210 (new status, revision); R. Bohart and Menke, 1976:106 (listed); Tano, Nozaka, Kurokawa, and Murota, 1994:56 (Philippines).

As *Sceliphron madraspatanum* (corrected to *Sceliphron madraspatanum conspicillatum* by van der Vecht and van Breugel, 1968:210): Williams, 1919d:123 (Philippines: Luzon: Los Baños: nesting behavior, as *maderaspatanum*); Krombein, 1949b:381 (in key to Sphecidae of Micronesia) and 387 (Caroline Islands).

ssp. formosanum van der Vecht

As *Sceliphron madraspatanum*: Rohwer, 1911a:482 (Taiwan).

Sceliphron madraspatanum formosanum van der Vecht in van der Vecht and van Breugel, 1968:204, ♀, ♂. Holotype: ♀, Taiwan: Chiai Prefecture: Kagi, now Chiayi (RMNH). – Tsuneki, 1971f:6 (Taiwan); Haneda, 1972a:5 (Taiwan); Tano, 1972:23 (Japan: Ryukyu Islands); Murota, 1973b:116 (Taiwan); R. Bohart and Menke, 1976:106 (listed); Murota, 1982d:8 (Taiwan), 1982g:56 (known from the Ryukyu archipelago); Kifune and Yamane, 1985:53 (stylopized by *Paraxenos orientalis* Kifune); Kifune, 1988:304 (stylopized by *Paraxenos orientalis* Kifune); Sk. Yamane and Ikudome, 1990:103 (distribution in Ryukyu Islands, Japan); Wu and Zhou, 1996:29 (revision in Economic Insect Fauna of China); Porter, Stange, and Wang, 1999:4 (in checklist of Sphecidae of Taiwan).

ssp. kohli Sickmann

Sceliphron kohli Sickmann, 1894:218, ♀, ♂. Syntypes: China: Hopei Province: Tientsin (NHMW). – Dalla Torre, 1897:387 (in catalog of world Hymenoptera); Kohl, 1918:109 (as new synonym of *Sceliphron madraspatanum*). – **As *Sceliphron madraspatanum kohli***: Gussakovskij, 1938:4 (new status, China: Kiangsu Province); Yasumatsu, 1942:106 (China: Beijing); van der Vecht and van Breugel, 1968:203 (revision); Tsuneki, 1971m:6 (China: Peking: Tiendang); R. Bohart and Menke, 1976:106 (listed); Sk. Yamane and Ikudome, 1990:102 (distribution in Ryukyu Islands, Japan); Li, 1995:88 (in key to Chinese Sceliphrini); Wu and Zhou, 1996:29 (revision in Economic Insect Fauna of China); Li and He, 2001:755 (China: Tianmushan Nature Reserve at 30°22'N 119°26'E).

ssp. pictum (F. Smith)

Pelopaeus pictus F. Smith, 1856:231, ♂. Syntypes: India: no specific locality (OXUM). – Maindron, 1878:397 (in checklist of *Pelopaeus* of India and Indian Archipelago); Cameron, 1889c:102 (listed). – **As *Sceliphron pictum***: Dalla Torre, 1897:388 (new combination, in catalog of world Hymenoptera); R. Turner, 1917e:176 (Arabia, India, Iran, Pakistan). – **As *Sceliphron madraspatanum pictum***: van der Vecht and van Breugel, 1968:203 (new status, revision); de Beaumont, 1970a:390 (Afghanistan); R. Bohart and Menke, 1976:106 (listed); Guichard, 1980:224 (Oman), 1988a:117 (Arabian Peninsula); Ebrahimi, 1993:99 (Iran); Jha and Farooqi, 1994:13 (description and illustration of male genitalia).

ssp. sutteri van der Vecht

Sceliphron madraspatanum sutteri van der Vecht, 1957c:368, ♀, ♂. Holotype: ♀, Indonesia: Sumba Island: Waikarudi (Basel). – van der Vecht and van Breugel, 1968:211 (revision, possibly a synonym of *Sceliphron madraspatanum madraspatanum*); R. Bohart and Menke, 1976:106 (listed).

ssp. *tubifex* (Latreille)

Pelopaeus tubifex Latreille, 1809:61, sex? Syntypes: Europe: no specific locality (lost). – Vander Linden, 1827:366 (Italy); Lepeletier de Saint Fargeau, 1845:314 (revision); F. Smith, 1856:228 (listed); A. Costa, 1867b:75 and 1867c:19 (in revision of Italian Sphecidae); Kirchner, 1867:217 (in catalog of European Hymenoptera); Taschenberg, 1869:428 (southern Europe); Marquet, 1875:207 (France: Hérault: Cette, now Sète); A. Costa, 1882b:22 (Italy: Sardegna); De Stefani Perez, 1882:39 (Italy: Sicilia: Sciacca), 1886:171 (Italy: Sicilia: monte di Renda near Palermo); Gasperini, 1887:18 (Dalmatia: Lesina Island, Spalato, now Croatia: Hvar Island, Split); Ed. André, 1888:108 (in revision of Sphecidae of Europe and Algeria), 1888:6* (bibliographic references); De Stefani Perez, 1889:269 (in key to Sicilian *Sceliphron*); A. Costa, 1893b:5 (Tunisia); De Stefani Perez, 1894:216 (Italy: Sicilia); Medina, 1894a:259 (Spain: Sevilla and Chiclana); F. Morawitz, 1894:340 (Turkmenistan: Keltechinar); De Stefani Perez, 1895:226 (in catalog of Sicilian Hymenoptera); Ghigi, 1902:190 (Greece: Ionian Islands: Kefalonia: Argostoli); Antiga and Bofill, 1904:3 (Spain: Cataluña Province). – **As *Sceliphron tubifex***: Dalla Torre, 1897:392 (new combination, in catalog of world Hymenoptera); Kokujev, 1902:10 (Turkmenistan: Askhabad); nec E. Saunders, 1903c:210 (= *Sceliphron caementarium*); Mantero, 1905:68 (Italy: Toscana: Isola del Giglio); de Gaulle, 1908:103 (in catalog of French Hymenoptera); Graeffe, 1911:48 (Italy: Trieste area); Morice, 1911:71 (Algeria); Szilády, 1913:89 (Hungary: Spalato, now Croatia: Split); Kohl, 1918:103 (in revision of world *Sceliphron*); Berland, 1921:533 (Greece); Fahringer and Friese, 1921:160 (Turkey: Erzurum: Chanziri in Amanus Mts. = Gavur Dağları); Morice, 1921:76 (Iraq: Basrah); Fahringer, 1922:176 (Turkey); Maidl, 1922:66 (Albania, Croatia); Berland, 1925d:43 (in Sphecid Fauna of France); von Schulthess, 1927:297 (Iran: Bender Abbas); Ebner, 1930:25 (Syria: Alexandrette, now Iskenderun); Grandi, 1930:340 (Italy: Toscana: Maremma); Giordani Soika, 1932a:21 (Italy: Lido di Venezia); Gussakovskij, 1933b:275 (Iran); Giner Mari, 1934a:131 (Spain); Grandi, 1934:130 (Italy: Lazio: Acilium and Toscana: San Vincenzo); Shirôzu, 1934:122 (Japan: Goto Islands); Bernard, 1935:61 (France: Var: Fréjus area), 62 (nest characteristics); Katayama and Ikushima, 1935:41 (life history); Bernard, 1936c:287 (France: Aude: Ile Sainte-Lucie; Var: Fréjus); Giner Mari, 1943a:63 (in Sphecid Fauna of Spain); Guiglia, 1943b:69 (Albania: Kopluku); Timon-David, 1943:29, 30 (France: Bouches-du-Rhône: plage de Fos); Giordani Soika, 1944:13 (Italy: Sicilia: Falcone); Guiglia, 1944b:9 (Italy); Ceballos, 1949:101 (Spain); de Andrade, 1949:4 (Portugal: Lagos, Vale de Gaio); de Beaumont, 1951e:270 (Morocco); Grandi, 1954:236 (Italy); Hertzog, 1954:100 (France: Bouches-du-Rhône: Camargue); de Beaumont and Bytinski-Salz, 1955:44 (Israel); Leclercq, 1955h:60 (is a synonym of *Sceliphron madraspatanum*); Vogrin, 1955:32 (Yugoslavia); Bytinski-Salz, 1956:224 (Turkey); Pulawski, 1958a:165 (Bulgaria); de Beaumont, 1959a:9 (Italy); Diniz, 1959:27 (Portugal: Lagos, Vale de Gaio); Grandi, 1959b:287 (Italy: Ravenna); Suárez, 1959:53 (Spain: Almería Province); Myartseva, 1963b:59 (Turkmenistan: lower Murgab River); Ceballos, 1964:87 (in supplement to catalog of Spanish Sphecidae); Diniz, 1965:3 (Portugal: oimbra, Évora, Vale de Gaio); Myartseva, 1965:87 (Turkmenistan: Akibay, Iolotan' district, Mary district, and Murgab district); Nishino, 1968:24 (Japan); Balthasar, 1972:438 (in Sphecid Fauna of Czechoslovakia: may be expected in the country); Casolari and Casolari Moreno, 1980:101 (specimens in M. Spinola collection). – **As *Sceliphron madraspatanum tubifex***: Gussakovskij, 1935:414 (new status; Tajikistan: Kulab), 1938:4 (...); Myartseva, 1968:62 (locality records from Turkmenistan), 64 (nesting behavior); van der Vecht and van Breugel, 1968:200 (revision); Myartseva, 1972b:111 (parasite: *Chrysis (Tetrachrysis)* sp.); Erlandsson, 1974:59 (Yugoslavia); R. Bohart and Menke, 1976:106 (listed); Haeseler, 1976a:370 (France, Yugoslavia, Spain); Pagliano, 1980:112 (Italy: Liguria); Mingo and Gayubo, 1983:140 (Spain); Schmidt and Westrich, 1983:120 (Greece); Gayubo, 1984c:354 (Portugal: El Algarve Province); Gayubo and Tormos, 1984:7 (Spain: Valencia); Chevin and Chevin, 1985:38 (France: Aude); Pagliano, 1984:369 (Italy), 1985:23 (Italy); Gayubo, 1986b:34 (Spain: Andalucía); Gayubo and Tormos, 1986a:7 (Spain: Castellón de la Plana); Asís and Jiménez, 1987:23 (Spain: Castellón Province); Tormos and Jiménez, 1987a:121 (Spain: Valencia); Gayubo, Asís, and Tormos, 1990a:8 (Spain);

Pagliano, 1990:64 (in catalogue of Italian Sphecidae); Gayubo, Borsato, and Osella, 1991:391 (Italy: Veneto, Sicilia); Negrisolo, 1991:315 (Italy: Udine Province); Fancello, 1993:76 (first record from Sardegna, Italy); Torregrosa, Gayubo, Tormos, and Asís, 1993b:11 (Spain: Alicante Province); Gayubo and Borsato, 1994:198 (Italy: Sardegna); Tormos, Asís, and Gayubo, 1994:187, 192 (Spain: Albacete Province); Negrisolo *in* Minelli, Ruffo, and La Posta, 1995b:3 (in catalog of Italian fauna); Bitsch, Barbier, Gayubo, Schmidt, and Ohl, 1997:41 (in Sphecidae Fauna of Western Europe); Giachino, Grosso, Marchetti, Pagliano, Scaramozzino, and Vailati, 2000:104 (Greece); Generani, Pagliano, Scaramozzino, and Strumia, 2003:64 (Italy: Arcipelago Toscano); Schmid-Egger, 2003:757 (Italy: Sicilia: Castelammare); Shoreenko, 2003:97 (Ukraine: Crimea: village Rybach'ye in Alushta district); Gayubo and Özbek, 2005:4 (Turkey: Ýçel: Silifke, Muðla:); Schmid-Egger, 2005:15 (recognition, color, distribution).

Pelopoeus pectoralis Dahlbom, 1845:434, sex not indicated. Holotype: sex unknown, France: St. Sever (Lund). Synonymized with *Sceliphron tubifex* by Ed. André, 1888:6*, synonymy confirmed by de Beaumont, 1953h:196. – Frauenfeld, 1861:103 (Croatia: Dalmatia); Sichel, 1861:751 (Italy: Sicilia); Palma, 1867:38 (Italy: Sicilia settentrionale). – **As *Sceliphron pectorale***: Dalla Torre, 1897:388 (new combination, in catalog of world Hymenoptera).

Pelopoeus transcaspicus Radoszkowski, 1886a:24, ♀. Syntypes: Turkmenistan: Askhabad area (Kraków). Synonymized with ... by ... – Ed. André, 1886:107 (in revision of Sphecidae of Europe and Algeria), 1888:6* (bibliographic references).

25. *murarium* (F. Smith)

Pelopoeus murarius F. Smith, 1863a:34, ♀. Lectotype, ♀, Indonesia: Ceram (OXUM), designated by Hensen, 1987:254. – F. Smith, 1865:84 (New Guinea). – Maindron, 1878:396 (in checklist of *Pelopaeus* of India and Indian Archipelago). – **As *Sceliphron murarium***: Dalla Torre, 1897:388 (new combination, in catalog of world Hymenoptera). – **As *Sceliphron fervens murarium***: R. Bohart and Menke, 1976:106 (new status, listed). – **As *Sceliphron murarium***: Hensen, 1987:254 (revision; resurrected status; southern Moluccas).

Pelopoeus rufipes Mocsáry, 1883:24, ♀, junior secondary homonym of *Sceliphron rufipes* (Fabricius, 1804). Holotype or syntypes: ♀, Indonesia: Moluccas: Ambon Island (TMB). Synonymized with *Sceliphron murarium* by ... – Kohl, 1918:131 (in revision of world *Sceliphron*).

Sceliphron mocsaryi Dalla Torre, 1897:388. Substitute name for *Pelopoeus rufipes* Mocsáry, 1883.

26. *neobilineatum* Jha and Farooqi

Sceliphron neobilineatum Jha and Farooqi, 1995:15, ♀, ♂. Holotype: ♀, India: Bihar: Pusa (depository?).

27. *paraintrudens* Jha and Farooqi

Sceliphron paraintrudens Jha and Farooqi, 1995:17, ♀, ♂. Holotype: ♀, India: Bihar: Pusa (depository?).

28. *pietschmanni* Kohl

Sceliphron pietschmanni Kohl, 1918:91, ♀ (as *Pietschmanni*, incorrect original capitalization). Holotype: ♀, Iraq: Hsitsche (NHMW). – de Beaumont, 1961e:2 (Iraq); van der Vecht and van Breugel, 1968:233 (revision); R. Bohart and Menke, 1976:106 (listed); Vardy, 1976 (description of ♂, Iraq); Dollfuss, 1989:12 (type material in NHMW).

29. *quartinae* (Gribodo)

Pelopoeus quartinae Gribodo, 1884a:298, ♀, ♂ (as *Quartinae*, incorrect original capitalization). Lectotype: ♀, Ethiopia: Shoa: Let Marefia 16 km N Ankober (Genova), designated by van der Vecht and van Breugel, 1968:212. – **As *Sceliphron quartinae***: Dalla Torre, 1897:389 (new combination, in catalog of world Hymenoptera); W. Schulz, 1906:192 (correction of Dalla Torre's data); nec Brauns, 1911:119 (= *Sceliphron fossuliferum*); Schulz, 1911b:159 (re-description); Kohl, 1918:105 (in revision of world *Sceliphron*); Mayer and von Schulthess, 1922:364 (= *Sceliphron fossuliferum*); nec von Schulthess, 1926:21 (= *Sceliphron fossuliferum*); Arnold, 1928b:245 (revision, nec ♀ = *fossuliferum*), 1930:16 (in checklist of Afrotropical Sphecidae); nec Schouteden, 1930:95 (= *Sceliphron fossuliferum*); Scott *in* Arnold, 1933a:370 (Ethiopia: Harar District, also Alaba and Higo Samula); Arnold, 1943:76 (Zaire); Guiglia, 1943c:76 (Ethiopia: Gamo Gofa: Sagan – Omo region), 1950:245 (Ethiopia: Gamo Gofa: Gondaraba at 4°58'N

36°49'E); Arnold, 1952:482 (redescription); Leclercq, 1955h:58 (bibliographic references), nec 59 (= *Sceliphron fossuliferum*), 1961b:51 (Cameroon, diagnostic characters); Diniz, 1964c:106 (Angola: Lunda: Xá-Ua, Rio Luíta); van der Vecht and van Breugel, 1968:212 (revision); R. Bohart and Menke, 1976:106 (listed); Gess, 1981:35, 72 (South Africa: 18 km WNW Grahamstown; building nests of mud or cow dung on grass); Dollfuss, 1990:122 (Central African Republic).

Sceliphron fulvohirtum Arnold, 1928b:246, ♀, ♂. Syntypes: Zimbabwe: Sanyati River (R. Stevenson coll., now SAM). Synonymized with *Sceliphron quartinae* by van der Vecht and van Breugel, 1968:212. – Arnold, 1930:16 (in checklist of Afrotropical Sphecidae), 1951:139 (Ethiopia: Lekempti); Leclercq, 1955h:58 (bibliographic references, locality records), 1951i:406 (Rwanda), 1961b:50 (Zaire), 1969:1048 (Congo Brazzaville).

As *Sceliphron quartinae voeltzkovii*: Leclercq, 1955h:59 (Cameroon), corrected to *Sceliphron quartinae* by Leclercq, 1961b:51.

30. *rectum* Kohl

Sceliphron rectum Kohl, 1918:124, ♀. Holotype: ♀, India: Sikkim: no specific locality (ZMHU). – R. Bohart and Menke, 1976:106 (listed); Hensen, 1987:226 (revision; as *rectum rectum*; Sikkim); Guichard, 1988a:117 (Arabian Peninsula; as *pulchellum rectum*).

ssp. pulchellum Gussakovskij

As *Sceliphron bilineatum*: Dutt, 1912:221 (life history), corrected to *Sceliphron rectum pulchellum* by Hensen, 1987:228.

Sceliphron pulchellum Gussakovskij, 1933b:275, ♂. Holotype: ♂, Iran: Bushire (ZIN). – R. Bohart and Menke, 1976:106 (listed). – As *Sceliphron rectum pulchellum*: Hensen, 1987:226 (revision, new status; Iran, India, Pakistan, United Arab Emirates).

31. *rufopictum* (F. Smith)

Pelopoeus rufopictus F. Smith, 1856:232, ♀. Lectotype: ♀, Indonesia: Sulawesi: no specific locality (BMNH), designated by Hensen, 1987:249. – Maindron, 1878:397 (in checklist of *Pelopaeus* of India and Indian Archipelago). – As *Sceliphron rufopictum*: Dalla Torre, 1897:389 (new combination, in catalog of world Hymenoptera); Kohl, 1918:129 (in revision of world *Sceliphron*); Hensen, 1987:249 (revision; as *rufopictum rufopictum*; Celebes). – As *Sceliphron deformis rufopictum*: van der Vecht, 1957:370 (...); R. Bohart and Menke, 1976:106 (listed).

Pelopoeus flavofasciatus F. Smith, 1858b:15, ♀ (as *flavo-fasciatus*, incorrect original hyphenation). Lectotype: ♀, Celebes (OXUM), designated by Hensen, 1987:249. Synonymized with *Pelopoeus rufopictus* by ... – Maindron, 1878:397 (in checklist of *Pelopaeus* of India and Indian Archipelago). – As *Sceliphron flavofasciatus*: Dalla Torre, 1897:385 (new combination, in catalog of world Hymenoptera).

ssp. bicinctum van der Vecht

Sceliphron deformis bicinctum van der Vecht, 1957c:370, ♀. Holotype: ♀, Indonesia: Sumba: no specific locality (Mus. Basel). – R. Bohart and Menke, 1976:106 (listed). – As *Sceliphron rufopictum bicinctum*: Hensen, 1987:249 (revision; new status; Indonesia: Sumba).

ssp. kalshoveni Hensen

Sceliphron rufopictum kalshoveni Hensen, 1987:249, ♀. Holotype: ♀, Indonesia: Java: Parjitan (RMNH).

ssp. laticinctum Hensen

As *Sceliphron deformis* (corrected to *Sceliphron rufopictum laticinctum* by Hensen, 1987:252); Williams, 1919d:122 (Philippines: Luzon: Los Baños: nesting behavior), Rohwer, 1921:675 (Philippines: Luzon).

Sceliphron rufopictum laticinctum Hensen, 1987:252, ♀, ♂. Holotype: ♀, Philippines: Los Baños (RMNH).

32. *seistaniensis* Jha and Farooqi

Sceliphron seistaniensis Jha and Farooqi, 1995:20, ♀, ♂. Holotype: ♀, Seistan, now parts of Iran and Afghanistan: McMohhan [may be the collector's name, not locality] (depository?).

33. *shetakovi* Gussakovskij

Sceliphron shetakovi Gussakovskij, 1928a:4, ♀. Syntypes: ♀: Turkmenistan: Merv = Mary (ZIL). – Myartseva, 1968:62 (Turkmenistan: Askhabad district, Farab, Mary); R. Bohart and Menke, 1976:106 (listed); Islamov, 1986:517 (Uzbekistan: Tashkent Oblast'); Kazenas, 1986:237 (rare in Kazakhstan, needs protection); Hensen, 1987:224 (revision; Tajikistan and Uzbekistan); Kazenas, 2001b:12 (in checklist of Sphecidae of Kazakhstan and Central Asia), 2002a:24 (geographic distribution, collecting localities in Kazakhstan).

34. *spirifex* (Linnaeus)

Sphex spirifex Linnaeus, 1758:570, sex not indicated. Lectotype: ♀, Europe: no specific locality (Linnean Society, London), designated by Day, 1979:72. – Fueßlin, 1775:50 (Switzerland); Illiger, 1807b:93 (synonymy, redescription); Jurine, 1807:128 (listed); Day and Fitton, 1978:193 (recuration of Linnean type material). – **As *Pelopaeus spirifex***: Latreille, [1805]:295 (redescription); Palisot de Beauvois, 1806:49 (Chama; Nigeria: Benin and Owara, now Warri; Isledu-Prince, now São Tomé and Príncipe; nest building, spider prey); Spinola, 1806:70 (Italy: Liguria); Vander Linden, 1827:365 (synonymy, southern Europe); Brullé, 1833a:370 (Greece: Peloponnesus), 1839:92 (Canary Islands); Dufour, 1841a:513 and 1841b:245 (digestive tract), 1841a:515 and 1841b:251 (male reproductive system), 1841a:517 and 1841b:253 (female reproductive system); Dahlbom, 1843:22 (in revision of Sphecidae and Pompilidae), 1845:XX (study of specimens in collection Fabricius), 433 (in key); Lepeletier de Saint Fargeau, 1845:305 (revision); Gistel, 1848:142 (southern and central Europe, description); Lucas, 1849:273 (Algeria: Alger, Bône, La Calle, Milah, Oran, description of nest and larva); Kirchner, 1854:311 (Czechoslovakia: Kaplitz in Budweiser District, now České Budějovice); F. Smith, 1856:227 (listed); Fairmaire, 1858:264 (Gabon); Gerstaecker *in* Peters, 1858:510 (Mozambique); Frauenfeld, 1861:103 (Croatia: Dalmatia); Schenck, 1861:162 (redescription, Austria, Czech Republic); Gerstaecker, 1862:481 (Mozambique); nec F. Smith, 1863a:34 and 1871:360 (= *Sceliphron javanum timorense*); A. Costa, 1866:24 (specimen from Gabon in Museo Zoologico di Napoli), 1867b:74 and 1867c:18 (in revision of Italian Sphecidae); Kirchner, 1867:217 (in catalog of European Hymenoptera); Palma, 1867:38 (Italy: Sicilia settentrionale); Schenck, 1867a:357 (known from Germany); Lucas, 1869:427 (nesting habits); Taschenberg, 1869:428 (southern Europe); Walker, 1871:19 (Egypt: Cairo); Taschenberg, 1872:12 (nest structure and prey); Ritsema, 1874:194 (Guinea); Marquet, 1875:206 (France: Haute-Garonne: Toulouse); Bertolini, 1876:52 (Italy: Calabria); Maindrion, 1878:396 (in checklist of *Pelopaeus* of India and Indian Archipelago, supposedly collected at Timor); Girard, 1879:971 (morphology and habits); Gribodo, 1881b:244 (Ethiopia: Kingdom of Scioa = Schioa: Let-Marefia); Magretti, 1881:115 (Italy: Lombardia), 270 (listed); Radoszkowski, 1881:211 (Angola); A. Costa, 1882b:22 (Italy: Sardegna); De Stefani Perez, 1882:39, 41 (Italy: Sicilia: Sciacca); Magretti, 1882a:160 (Italy: Sardegna); A. Costa, 1883a:57 (Italy: Sardegna); Magretti, 1883:249 (Sudan); Gribodo, 1884a:298 (Ethiopia: Daimbi, Let-Marefia 16 km N Ankober); Gasperini, 1887:18 (Dalmatia: Lesina and Lissa islands, Spalato, now Croatia: Vis and Hvar islands, Split); Magretti, 1994b:576 (Ethiopia); De Stefani Perez, 1884b:9 (parasite: *Sitaris muralis* Forst.); Ed. André, 1886:103 (in revision of Sphecidae of Europe and Algeria); De Stefani Perez, 1886:171 (Italy: Sicilia: monte di Renda near Palermo); Ed. André, 1888:5* (bibliographic references); Cuní y Martorell, 1888:164 (Spain: Barcelona); Riggio and De Stefani Perez, 1888:149 (Italy: Ustica Island); De Stefani Perez, 1889:269 (in key to Sicilian *Sceliphron*); Radoszkowski, 1892:580 (male genitalia); Schletterer, 1891:13 (Zaire); A. Costa, 1893b:5 (Tunisia); Kohl, 1883e:183 (Mozambique, Tanzania); Baldini, 1894:49 (Italy: Modena area); De Stefani Perez, 1894:216 (Italy: Sicilia); Gribodo, 1894:136 (Mozambique: Magnarra River); Medina, 1894a:259 (Spain: Sevilla, Morón, Huévar, and Puerto-Real); De Stefani Perez, 1895:226 (in catalog of Sicilian Hymenoptera); Laboulbène, 1895:180 (preying on spiders); W.F. Kirby, 1896:265 (Gabon); Medina, 1896:104 (Spain: Jerez and Cádiz), 1897:192 (Spain: Jerez de la Frontera); Cuní y Martorell, 1897:331 (Spain: Cataluña: villa de Calella); Dalla Torre, 1897:390 (in catalog of world Hymenoptera); Flamary, 1898:38 (France: Saône-et-Loire: Mâcon area); Friese, 1900:267 (Madagascar, determination tentative); E. Saunders, 1901:208 (Spain: Minorca); Antiga and Bofill, 1904:3 (Spain: Cataluña Province); Olivier, 1910:163 (Algeria: Saïda, Hamman-Meskoutine); Innes Bey, 1912:111 (specimens recorded by Walker, 1871, now destroyed by dermestids, were collected in Sinai); Coulon, 1925:115 (Spain, Sicily, Morocco);

Guiglia, 1928:499 (Somalia); Ceballos, 1949:101 (Spain); Casolari and Casolari Moreno, 1980:101, 102 (specimens in M. Spinola collection). – *As Sceliphrum spirifex*: W. Schulz, 1906:43 (Greece: Crete), 308 (Fernando Po, now Bioko). – *As Sceliphron spirifex*: Blanchard, 1840:... (as *spinifer*); Gribodo, 1894c:136 (Mozambique: Magnarra River); Bingham, 1898a:105 (Yemen: Aden); du Buysson, 1898:358 (South Africa: Cape Province: Hamanskraal); Magretti, 1899:601 (Somalia); Mocsáry, 1897:79 (Kingdom of Hungary, all localities are in today's Croatia); Bingham, 1902:217 (South Africa); E. Saunders, 1904c:605 (Spain: Mayorca), 637 (Spain: Barcelona); Tullgren, 1904:442 (Cameroon); Ferton, 1905:63 (prey, prey condition); Mantero, 1905:67 (Italy: Toscana: Isola del Giglio); Zavattari, 1905b:4 (Lebanon: Bekfeiya); Cameron, 1908a:268 (Tanzania: Mt. Kilimanjaro); Cecconi, 1908:23 (Italy: Puglia: Isole Tremiti); de Gaulle, 1908:103 (in catalog of French Hymenoptera); Kohl, 1909:370 (Kenya: Mombasa); von Schulthess, 1909:440 (Libya: Dernah, Tripoli); Cameron, 1910b:136 (South Africa: Transvaal); Zavattari, 1910:4 (Italy: Isola d'Elba: Portoferraio); Brauns, 1911a:118 (South Africa, nesting); Graeffe, 1911:48 (Italy: Trieste area); Longstaff, 1911:125 (Sudan: Khartoum and Mut Mir railroad station); W. Schulz, 1911b:159 (Gribodo's 1881 record from Ethiopia confirmed); Bischoff, 1912:220 (Zaire); Zavattari, 1912:3 (Italy: Sardegna: Pantaleo); Mantero, 1915:323 (Libya); Strand, 1915:91 (Italy and "Barbaria"); Kohl, 1918:87 (in revision of world *Sceliphron*); Roth, 1920c:140 (specimen with 2 submarginal cells); Berland, 1921:533 (Greece); Fahringer and Friese, 1921:160 (Turkey: Erzurum: Das Daghin Amanus Mts. = Gavur Dağları); Fahringer, 1922:175 (Turkey); Maidl, 1922:66 (Albania, Croatia); Gribodo, 1924b:48 (Libya: Benghazi, Marsa, Zavia Mechili); Maild, 1924:246 (Sudan: Atbara, Khartoum); Roth, 1924:123 (Algeria: Nemours, now Ghazaouet); Zanon, 1925:91 (Libya: Fueihat 15 km S Benghazi); von Schulthess, 1926b:208 (Tunisia, Libya); Eidmann, 1927:33 (Spain: Balearic Islands); Arnold, 1928b:244 (revision); Aptel, 1929:236 (nesting habits); Bugnion, 1929:164 (bucco-pharyngeal complex); Grandi, 1929:262 (prey capture), 263 (description of mature larva); Alfken, 1930:10 (Malta); Arnold, 1930:16 (in checklist of Afrotropical Sphecidae); Grandi, 1930:304 (list of prey, nest parasites), 307 (description of young larva), 340 (Italy: Toscana: Maremma); Schouteden, 1930:95 (Zaire); Guiglia, 1931:45 (nest, cocoon, parasite: *Cryptus seductorius* Gravenhorst); Giordani Soika, 1932a:21 (Italy: Lido di Venezia); Guiglia, 1932a:124 (Kenya, Somalia); Arnold, 1933a:357 (Ethiopia, southern Arabia); Bischoff, 1933:6 (Morocco); Masi, 1933:197 (Italy: Toscana: Isola di Capraia); Nadig, 1933:100 (Morocco); Giner Mari, 1934a:131 (Spain); Grandi, 1934:66 (list of prey), 130 (Italy: Lazio: Acilia, and Toscana: San Vincenzo); Guiglia, 1934b:295 (Libya: bibliography and summary of locality records); Maidl, 1934:64 (Greece: Aegean Islands: Milos); Nadig, 1934:33 (Italy: France: Corse: Bastia, Cap Corse; Sardegna: Cagliari, Iglesias); Arnold, 1935b:1 and 8 (Mauritania: Nema); Bernard, 1935:61 (France: Var: Fréjus area), 62 (nest characteristics), 1936c:287 (France: Var: Fréjus); Grandi, 1935a:53 (nesting habits including list of prey); Bischoff, 1937b:2 (Canary Islands); Grandi, 1937:291 (life history), 302 (description of larva); Guiglia, 1938a:186 (Somalia: Belet Amin in Jubba River area), 1938b:9 (Italy: Sardegna); Giordani Soika, 1939a:169 (Eritrea: Tessenei), 1939c:104 (Eritrea: Adi Ugri); Guiglia, 1939a:200 (Eritrea: Keren, Ethiopia: Gonder), 1939b:90 (Ethiopia: Lake Tana: Bahar-Dar, Gorgora), 1940d:287 (Somalia); Mader, 1940:103 (probable host of *Stilbum calens* F.); Guiglia, 1942a:58 (Greece: Rhodes Island: Villanova); Arnold, 1943:76 (Zaire); Giner Mari, 1943a:63 (in Sphecid Fauna of Spain); Guiglia, 1943b:69 (Albania: Kopliku), 1943c:75 (Ethiopia: Gamo Gofa: Sagan – Omo region); Giordani Soika, 1944:13 (Italy: Sicilia:Falcone, Messina); Guiglia, 1944b:8 (Italy); de Beaumont, 1947b:384 (Cyprus); de Andrade, 1949:5 (Portugal: Conceição de Faro, Bela Salema); Guiglia, 1948c:200 (Italy: Sardegna: Oristano, Villasalto); de Beaumont, 1950b:70 (new to Switzerland), 1950d:7 (Egypt: Siwa oasis), 1950f:396 (Algeria, Morocco); Guiglia, 1950:245 (Ethiopia: Gamo Gofa: Caschei, El Dire, Murle Omo); Pittioni, 1950:21 (Cyprus); de Beaumont, 1951e:270 (Morocco); Berland, 1952b:276 (boundary of Ivory Coast, Guinea, and Liberia: Mt. Nimba); Cleu, 1953:50 (France: Ardèche River basin); Balthasar, 1954b:281 (Palestine); Grandi, 1954:236 (Italy); Hertzog, 1954:100 (France: Bouches-du-Rhône: Camargue); de Beaumont and Bytinski-Salz, 1955:44 (Israel); Harant and Leclercq, 1955:251 (France: Hérault: Castelnau, Palavas-les-Flots); Leclercq, 1955h:60 (bibliographic references, locality records from Africa), 1955i:406 (Burundi, Rwanda); Steiner, 1955:134 (France: Dordogne); Vogrin, 1955:31 (Yugoslavia); Bytinski-Salz, 1956:224 (Turkey); de Beaumont, 1956d:2 (Cabo Verde Islands); Evans and Lin, 1956a:149 (larval characters as described by Grandi, 1929); Morel, Nouvel, and Ribaut, 1956:337 (France: Département des Pyrénées-Orientales);

Grandi, 1957:344 (prey: *Araneus* sp., nest content), 387 (Libya: Tripolitania: Wadi Kaam); Nouvel and Ribaut, 1958:9 (France: Pyrénées-Orientales: Banyuls-sur-Mer area); de Beaumont, 1959a:9 (Italy); Compte Sart, 1959:131 (Spain: Mayorca); Diniz, 1959:27 (Portugal: Bela Salema, Conceição de Faro); Giner Marí, 1959:387 (Morocco); Suárez, 1959:53 (Spain: Almería Province); Suárez *in* Giner Marí, 1959:400 (recorded from Morocco by de Beaumont, 1951); de Beaumont, 1960a:6 (Greece: Rhodes Island), 1961c:45 (Greece: Crete Island); Grandi, 1961:148 (life history), 471 (larva); Leclercq, 1961b:52 (Zaire); Atanassov, 1962:127 (Bulgaria: Petrich area); Krombein and Walkley, 1962:78 (parasites: *Dolichomutilla minor*, *Chrysis lyncea* Fabricius, and the ichneumonid *Osprynchotus gigas* Kriechbaumer); Leclercq, 1962a:394 (Uganda: Jinja); MacNulty, 1962:118 (nest building in Nigeria); Ceballos, 1964:87 (in supplement to catalog of Spanish Sphecidae); de Beaumont, 1964c:30 (in Sphecid Fauna of Switzerland); Diniz, 1964b:238 (Cabo Verde Islands, Guinea Bissau, São Tomé, redescription), 1964c:107 (Angola: Lunda: Dundo, Muita-Luembe); de Beaumont, 1965a:17 (Greece); Diniz, 1965:3 (Portugal: Conceição de Faro, Miranda do Corvo, Poiares); Roberti, Frilli, and Pizzaghi, 1965:109 (Italy); de Beaumont, 1967a:276 (Turkey), 1967b:504 (South Africa), 1968a:255 (Canary Islands: Gran Canaria, Tenerife); van der Vecht and van Breugel, 1968:238 (revision); Leclercq, 1969:1048 (Congo Brazzaville); de Beaumont, 1969:81 (Turkey); Zangheri, 1969:1700 (Italy); Atanassov, 1972a:193 (Bulgaria: Stara Planina Mountains, as *sperifex*), 1972b:32, 48, 53 (Bulgaria: Stara Planina Mountains); Balthasar, 1972:438 (in Sphecid Fauna of Czechoslovakia: may be expected in the country); Erlandsson, 1974:60 (Greece, Italy, Malta, Spain, Yugoslavia); Leclercq, 1974a:414 (Belgium: in custom office from parcels coming from central Africa) Bonelli, 1976:226 (nesting behavior); R. Bohart and Menke, 1976:106 (listed); Haeseler, 1976a:370 (France, Sardinia, Spain, Yugoslavia); R. Bohart and Menke, 1976:106 (listed); Georghiou, 1977:191 (Cyprus); Báez and Ortega, 1978:192 (Canary Islands); Erlandsson, 1978a:205 (Canary Islands); Guichard, 1978:270 (Greece); Kazenas, 1978b:46 (in key to Sphecidae of Kazakhstan and Central Asia); Marion, 1978:86 (Corsica, Morocco, Gabon); Guichard, 1980:224 (Oman); Pagliano, 1980:111 (Italy: Liguria, Piemonte); Gess, 1981:27 (South Africa: 18 km WNW Grahamstown; nesting on vertical banks; prey: small spiders; parasite: *Osprynchotus violator* (Thunberg), an ichneumonid), 61 (nest built in protected situations); Heath and Leclercq, 1981: map 14 (distribution in Europe); Groh, 1982:260 (Cape Verde Islands); Dollfuss, 1983b:2 (occurrence in Austria doubtful); Mingo and Gayubo, 1983:140 (Spain); Piek, Buitenhuis, Veldsema-Currie, and Mantel, 1983:153-159 (venom contains histamine, but no acetylcholine); Schmidt and Westrich, 1983:120 (Greece); Gayubo, 1984c:355 (Portugal: El Algarve Province); Gayubo and Tormos, 1984:7 (Spain: Valencia); Pagliano, 1984:369 (Italy); Chevin and Chevin, 1985:38 (France: Aude); Gayubo, 1985c:166 (Spain: Valladolid: Valladolid); Józán, 1985b:55 (Hungary S Lake Balaton), 83 (ecological and zoogeographic characteristics); Pagliano, 1985:24 (Italy); Gayubo, 1986b:35 (Spain: Andalucía), 1986c:30 (Spain: Zamora Province); Gayubo and Heras, 1986:26 (Spain: Segovia Province); Gayubo and Tormos, 1986a:7 (Spain: Castellón de la Plana), 1986b:3 (Spain: Valencia); Asís and Jiménez, 1987:23 (Spain: Castellón Province); Gayubo, 1987:106 (Spain: Ciudad Real Province); Tormos and Jiménez, 1987a:121 (Spain: Valencia), 1987b:316 (Spain: Valencia Province: Dehesa de El Saler); Guichard, 1988a:117 (Arabian Peninsula); Jocqué, 1988:7 (list of spider families used as prey in Malawi); Piek, 1989:54 (France: Var Department, nest reused by *Ancistrocerus renimacula*); Dollfuss, 1990:122 (Central African Republic); Edmunds, 1990:120 (list of spider prey in Ghana); Gayubo, Asís, and Tormos, 1990a:8 (Spain); Pagliano, 1990:64 (in catalogue of Italian Sphecidae); Gayubo, Borsato, and Osella, 1991:391 (Italy); Gayubo and Torres, 1991:Table I and p. 81 (Spain: Salamanca; effects of urban pressure); Negrisoló, 1991:315 (Italy: Udine, Treviso, and Venezia Provinces); Schembri, 1991:177 (Malta); Gayubo, Borsato, and Osella, 1992:274 (Greece); Early and Townsend, 1993:53 (adventive to New Zealand but not established there); Gayubo, Tormos, and Asís, 1993:308 (teratological specimen); Hohmann, La Roche, Ortega, and Barquín, 1993:207 (detailed records from Canary Islands); Luchetti, 1993:105 (Italy: Sardegna: Maddalena archipelago); Simon Thomas and Wiering, 1993:403 (Cape Verde Islands); Torregrosa, Gayubo, Tormos, and Asís, 1993:11 (Spain: Alicante Province); Gayubo and Borsato, 1994:199 (Italy: Veneto, Sardegna); Roche and Zalát, 1994:113 (Egypt: Sinai Peninsula); Tormos, Asís, and Gayubo, 1994:187, 192 (Spain: Albacete Province); Negrisoló *in* Minelli, Ruffo, and La Posta, 1995b:3 (in catalog of Italian fauna); Pagliano and Pesarini, 1995:82 (Italy: Ferrara Province); Pagliano and Scaramozzino, 1995:731 (Italy: Island of Lampedusa); Bitsch, Barbier, Gayubo, Schmidt, and Ohl, 1997:42 (in Sphecid Fauna of

Western Europe); Gauss, 1997a:17 (Germany: Burg Birkenhof near Freiburg); Gayubo, García, Torres, and González, 1999:89 (Spain: Soria Province); Generani, Pagliano, Scaramozzino, and Strumia, 1999:79 (Italy: Toscana: Isola di Montecristo); Ljubomirov, 1999b:44 (Bulgaria: Vitosha Mt. near Sofia); Tüzün, Gülmez, and Bağrıaçık, 1999:383 (Turkey: Aegean Region); Ljubomirov, 2000:6, 7 (Bulgaria, specimens in N. Nedelkov collection); Basset, 2001:79 (France: Département de Gironde); Kazenas, 2001b:13 (in checklist of Sphecidae of Kazakhstan and Central Asia), 72 (review of nesting habits); Nachtigall, 2001:161 (formation of clay globules for nest building); Carrière, 2003:419 (France: Hérault: Saint-Michel de Bagnas, coexistence with *Sceliphron caementarium* and *destillatorium*); Generani, Pagliano, Scaramozzino, and Strumia, 2003:64 (Italy: Arcipelago Toscano); Pagliano, 2003b:130 (Italy: Islands of Lampedusa and Pantelleria); Schmid-Egger, 2003:757 (Italy: Sicilia: Avola; Malta: Busket, Mgarr); Gayubo and Özbek, 2005:4 (Turkey: many localities); Jacobs, 2005:438 (Bulgaria); Schmid-Egger, 2005:10 (in key to European and Mediterranean *Sceliphron*), 15 (recognition, color, distribution); Polidori, Trombino, Fumagalli, and Andrietti, 2005:153 (use of granulometric method to analyze cocoon structure and content).

Sphex aegyptius Linnaeus, 1758:569, sex not indicated (as *Aegyptia*, incorrect original capitalization and termination).

Holotype: ♂, Egypt: no specific locality (Museum Ludovicae Ulricae, Uppsala). Synonymized with *Sceliphron spirifex* by Dalla Torre, 1897:391 (by treating the name as a variety of *spirifex*) according to Day, but this is contrary to Article 23.3.1 of the Code. – Linnaeus, 1764:406 (in museum of Queen Ludovica Ulrica, redescription); Lichtenstein, 1796:199 (in auction catalog); Schulz, 1912:56 (*aegyptiacum* is the valid name for *spirifex*, as first reviser); Day, 1979:48 (study of holotype); Day and Fitton, 1978:193 (recuration of Linnean type material: no specimens). – **As *Sceliphron spirifex* var *aegyptiacum***: Dalla Torre, 1897:391 (new status, in catalog of world Hymenoptera). – **As *Pelopaeus aegyptius***: Kollar, 1851:201 (Egypt: Cairo); W.F. Kirby, 1881b:650 (Island of Socotra).

Sphex spirifex atra Scopoli, 1786:57, Italy. Synonymized with ... by ...

Sphex flavipes Christ, 1791:... (♂ only, ♀ = *Sceliphron destillatorium*), junior primary homonym of *Sphex flavipes* Fabricius, 1781.

Sceliphron aegyptiacum Klug, 1801:.... Synonymized with *Sceliphron spirifex* by ... – **As *Sphex spirifex* var. *aegyptiacum***: Maidl, 1913:560 (Egypt: Aswan Dam, Nagh Hamadi).

Sceliphron spirifex var. *aegyptiacum* Dalla Torre, 1897:391, junior primary homonym of *Sceliphron aegyptiacum* Klug, 1801. Unjustified emendation of *Sphex aegyptia* Linnaeus, 1758.

35. *unifasciatum* (F. Smith)

Pelopaeus unifasciatus F. Smith, 1860b:123, ♀. Holotype: ♀, Indonesia: Moluccas: Batjan: no specific locality (OXUM). – Maindron, 1878:396 (in checklist of *Pelopaeus* of India and Indian Archipelago). – **As *Sceliphron unifasciatum***: Dalla Torre, 1897:392 (new combination, in catalog of world Hymenoptera); Kohl, 1918:129 (as synonym of *Sceliphron rufopictum*); R. Bohart and Menke, 1976:106 (listed; as *deforme unifasciatum*); Hensen, 1987:254 (revision; northern Moluccas).

Pelopaeus affinis Maindron, 1878:395, ♀. Holotype: ♀, Indonesia: Halmahera: Doddinga (depository?), junior secondary homonym of *Sceliphron affine* (Fabricius, 1793). Synonymized with *Sceliphron unifasciatum* by Hensen, 1987:254. – Maindron, 1878:397 (in checklist of *Pelopaeus* of India and Indian Archipelago). – **As *Sceliphron affine***: Kohl, 1918:129 (questionable synonym of *Sceliphron rufopictum*), 132 (new combination, original description copied).

sp.

Sörensen, 1884:13 (nesting habits of *Pelopaeus lunato* affinis, South America); Schouteden, 1930:95 (Zaire); de Beaumont, 1967b:505 (South Africa); Dorris, 1970:10 (list of prey); Al-Ali, 1977:100 (Iraq: Diwaniya); Martins, Serrão, and Schmidt, 2005:121 (spermatheca long, coiled, with reservoir more developed than in *Trypoxylon* or *Microstigmus*).

UNRECOGNIZABLE NAME

Pelopaeus clypeatus Kohl: Verlaine, 1924:197 (nesting habits and experiments), 1926:[174] (nesting habits and experiments). The species is said to be barely distinguishable from *spirifex*.

NOMINA NUDA IN SCELIPHRON

Pelopoeus habilis: Casolari and Casolari Moreno, 1980:101 (specimens in M. Spinola collection).

Pelopoeus madraspalenus: Casolari and Casolari Moreno, 1980:101 (specimens in M. Spinola collection).

FOSSIL SCELIPHRON***brevior* Cockerell**

Sceliphron (?) *brevior* Cockerell, 1921:20, sex unknown. Holotype: Great Britain: Isle of Wight. Oligocene (BMNH).

***tertiarium* Meunier**

tertiarium Meunier, 1915:9, sex not indicated. Holotype: France: Bouche-du-Rhône Department: Aix-en-Provence. Oligocene (depository?).

SPECIES DESCRIBED IN SCELIPHRON AND TRANSFERRED TO OTHER GENERA

brasiliense Schrottky, 1903 = *Penepodium*

frontale Kohl, 1906 = *Chalybion*

horni Strand, 1915 = *Chalybion malignum* (Kohl, 1906)

inflexum Sickmann, 1894 = *Chalybion*

junonium Schrottky, 1903 = *Penepodium*

pauloense Schrottky, 1903 = *Penepodium*

ritsemae Dalla Torre, 1897 = *Chalybion japonicum* (Gribodo, 1883)

taprobanense Strand, 1916 = *Chalybion fuscum* (Lepelletier de Saint Fargeau, 1845)

vicinum Dalla Torre, 1897 = *Trigonopsis*

violascens Dalla Torre, 1897 =