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Salticidae (Araneae) genera of the world - an atlas
(unfinished manuscript)
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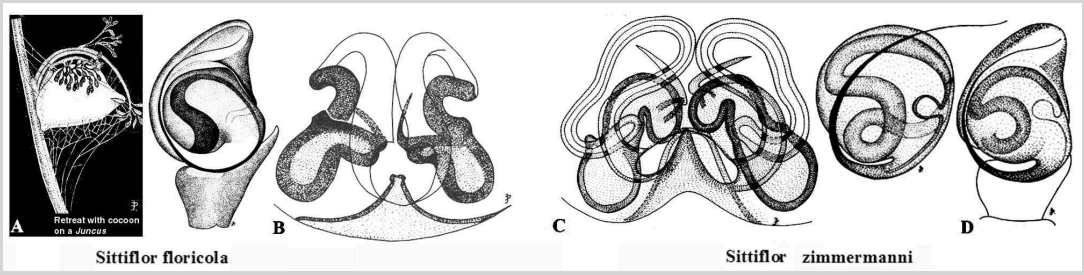
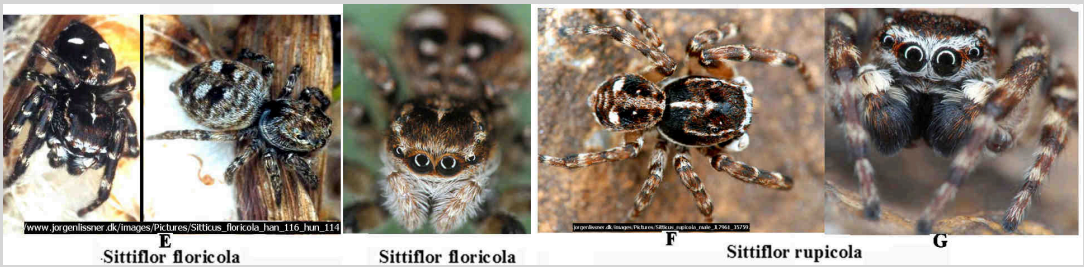
Chapter 17
SITTICINES
informal group of genera
Version August 27th, 2020

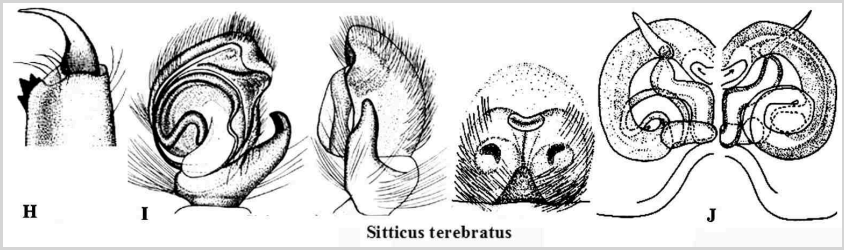

symbol of the supragroup AMYCOIDA

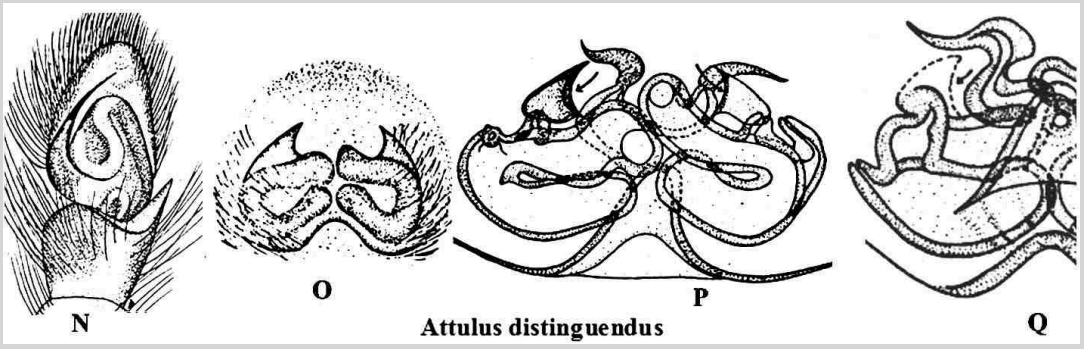
Composition and searching on this page: Attulus Jollas Sittiab Sitticus s. s. [temporarily including uncertain leucoproctus and palpalis groups of species] SITTIFLOR Sittilong Sittipub Sittisax Tomis.

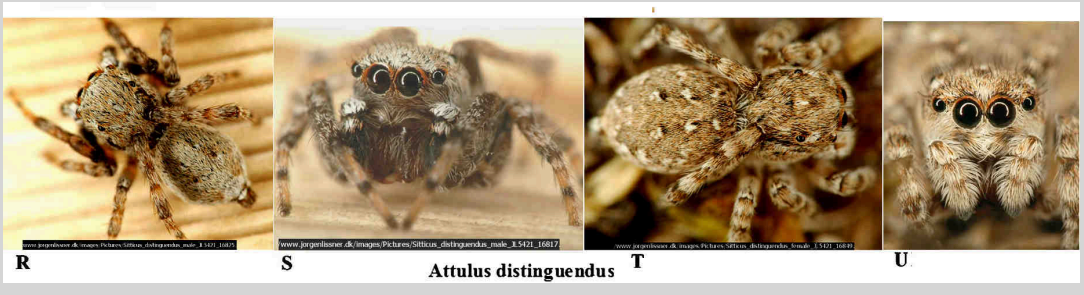
Type species of the three most important genera of the Palaearctic SITTICINES











SITTICINES

informal group of genera

Modern idea of SITTICINES was developed during 1960ties (and published in installments from 1968 to 1987) by Prószyński accepting all relevant species as a single genus *Sitticus*, defined by presence of unique cheliceral comb-like tooth (Fig. H above), generalized appearance of palp and internal structure of epigyne, additional helpful character was general appearance of live specimens, sufficient for recognition in the field by European collectors. The phylogenic grouping within genus were pronounced by subdivision into group of species.(*terebratus*, *floricola*, *distinguendus*, *saxicola, penicillatus* and *absolutus* groups). After five decades of following that, a systemic improvement appeared desirable: groups of species within genera are not displayed by the World Spider Catalog, which lists species alphabetically, so readers using WSC are left unaware of phylogenic differences. Discovery by Maddison that *Sitticus* is Palaearctic (mainly!) representative of South American AMYCINES reduced usefulness of cheliceral dentition (characteristic also for S American relatives) and increased diagnostic importance of genitalic characters. Self-correction of system of SITTICINES was undertaken by Prószyński in Salticidae Database 1995-2016 and formally presented in 2017. The comprehensive genus *Sitticus* was subdivided into number of smaller, more uniform genera, with a new way of showing relationship among genera by usage of "**acronymic**" genus names (joining indicative core "Sitti"- with second part indicating representative species). That was met with emotional resistance of several arachnologists (like so many other novelties by Prószyński), well exemplified by publication of Kropf et all. 2019 (see full original text and ensuing publications at Kropf et all. 2019. A particularly harmful interventions were return to forgotten name combinations by coauthors of Kropf - Blick & Marusik **(2018, 2019)** (*Arachnologische Mitteilungen* **57**: 89-91 and *Arthropoda Selecta* **27**(3): 237-238 respectively), who seem not to understand value of clarity of records, but were eager to join discriminative hunting for Prószyński.

Genus *Attulus* Simon, 1868, restored (to respect its priority over *Sitticus*)

Attulus Simon, 1868 (type species *Attus helveolus* Simon, 1871)
Sitticus Simon, 1901 (type species *Araneus terebratus* Clerck, 1757)
Sitticulus F. Dahl, 1926 (type species *Attus saltator* O. Pickard-Cambridge, 1868), syn. nov.
Calositticus Lohmander, 1944 (type species *Attus caricis* Westring, 1861), syn. nov.
Hypositticus Lohmander, 1944 (type species *Aranea pubescens* Fabricius, 1775), syn. nov.
Sittipub Prószyński, 2016 (type species *Aranea pubescens* Fabricius, 1775), syn. nov.
Sittiflor Prószyński, 2017 (type species *Euophrys floricola* C.L. Koch, 1837), syn. nov.
Sittilong Prószyński, 2017 (type species *Attus longipes* Canestrini, 1873), syn. nov.

SOURCE: Maddison, W. P., Maddison, D. R., Derkarabetian, S. & Hedin, M. (2020). Sitticine jumping spiders: phylogeny, classification, and chromosomes (Araneae, Salticidae, Sitticini). ZooKeys 925: 1-54. obscure

A competitive version of systematics of *Sitticus* s. l. is proposed recently by Maddison (2020) (see facsimile above), which seems (at least to me - J. Prószyński) the worsest of all. Lumping a number of clearly different genera (see Figs A-U above, a genus is - "**a group of species sharing similar characters (or genomes if somebody is able to document it), separated from other groups by a gap of characters**") creates assemblage devoid of mutual shared character. Attempts of including phylogenetical interpretation in such huge assemblage of species, as proposed "*Attulus*", are futile because WSC editors will list the species alphabetically, disregarding any grouping, subgenera or clades. These phylogeny aspects could be explained, of course, in a separate article, but why not to explain instead smaller, but uniform and better defined genera? Maddison (many papers since 2003) developed a comprehensive system of Salticidae based on molecular arguments whose application to taxonomic practice is obscure. I propose usage of the Occam's razor principle for this case. As for taxonomy of SITTICINES I accept and support arrangements presented in this chapter below.

One minor detail in Maddison's et all (2020) deserves attention - his literature quotation (see facsimile below, highlighted) - Maddison polemizes with Prószyński 2017 paper, so quotation of his paper is natural, but Kropf's? Kropf does not mention genera *Attulus*, or *Sitticus*, so how it is related to the disputed problem?

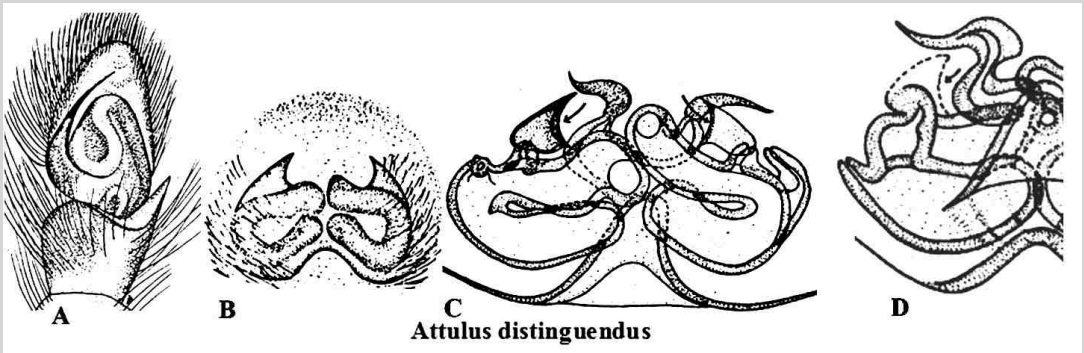
2 *Wayne P. Maddison et al. / ZooKeys 925: 1–54 (2020)*
Sitticine jumping spiders 3

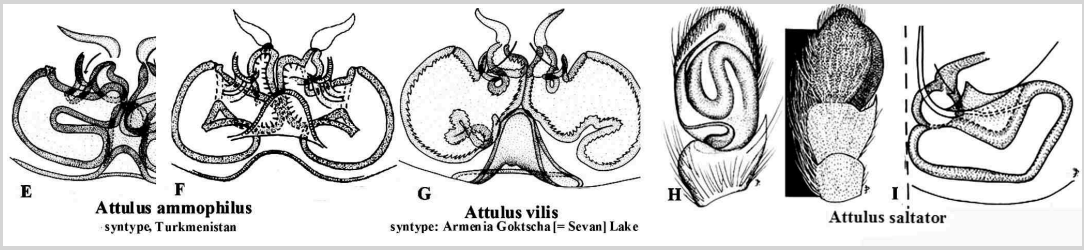
about the few characters mentioned. Furthermore, Prószyński provides little discussion of the diagnostic characters, indeed arguing against explicitly stating or explaining them (see Prószyński 2017a; Kropf et al. 2019). Thus, both his characters and his taxa remain inscrutable.

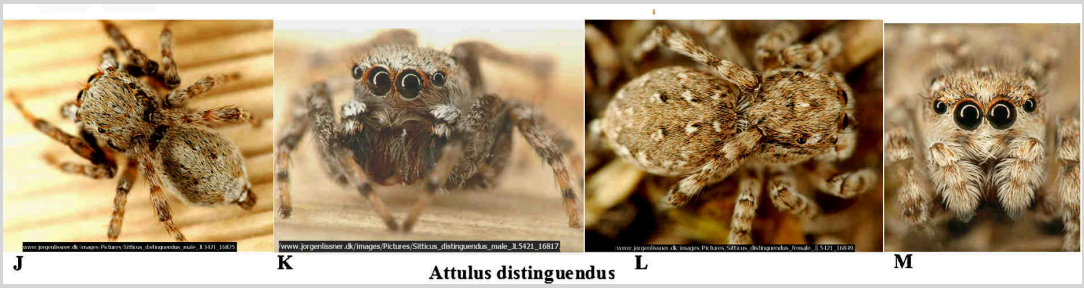
Oh, its related very much, stating that: [papers of Prószyński] "*…**should be ignored by the community***" because "*…**brings nothing but chaos in salticid systematics***" and "*…**this is nothing but scientific malpractice***"... -------- see - **Kropf & twelve intellectuals, `2019** . Maddison is a nice guy with highly civilized manners, aspiring to become an icon of Salticidae taxonomy. Too intelligent to soil hands, or to risk comments like: ***"unnecessary and wrong" "defamatory", " bad manners"*** [all quotations from http://salticidae.pl/4_genera/0_introduction_guide_groups.html#Motto" "../4_genera/0_introduction_guide_groups.html#Motto" section of this paper]. Accusation of a colleague always can hit back accuser. But it is so pleasant to join crowd throwing mud on a lone victim! The solution is to cipher defamation as reference, understood for a few concerned and looking innocent for uninitiated.

Gen. *Attulus* Simon, 1889, *sensu* Prószynski, 2017

Type species *Attus distinguedus* Simon, 1868 (species)
See more species at Sitticus*(distinguendus-group)*-Q+M







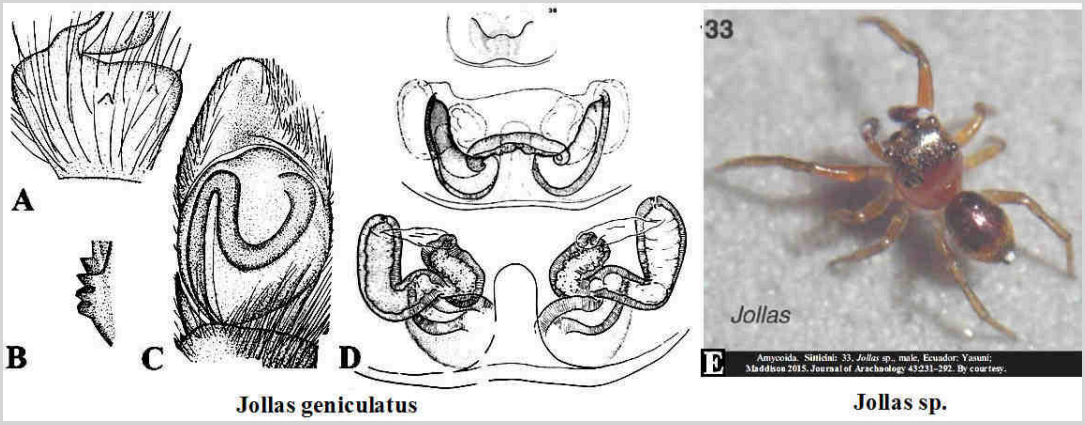
A-D, J-M - *Attulus distinguendus* - type species of the genus *Attulus* (its synonym are *Attulus cinereus* = *A. helveolus*) - type specimen: spermatheca and duct, E-F - *Attulus ammophilus*: spermatheca and ducts, G - *Attulus vilis* - syntype specimen from Armenia Goktscha [Sevan] Lake, by Prószynski, D - Attulus saltator. **B** - *Attulus distinguendus,* H-I, N-O - *Attulus saltator***.**
SOURCE: Prószyński, 1987: 82-98 (drawings not numbered). All ©copyrights are retained by the original authors and copyright holders, used here by their courtesy.

COMMENT (May, 2020): Looking once more at drawings of various species of *Attulus* published in Prószyński 1987: 82-98, some of them made as early as in 1962, I think some of them need revision of old specimens, and confirmation on new fresh material) to check correctness of interpretations and synonymy. NB. Epigyne mounted in Canada Balsam slides may be invisible now - they need refreshment by slow dissolving Balsam in Toluol or Xylol, transfer trough water to ethyl alcohol, re-staining in Chlorazol Black E. After making new documentation they should be stored in a microvial, together with the specimens they were separated from.

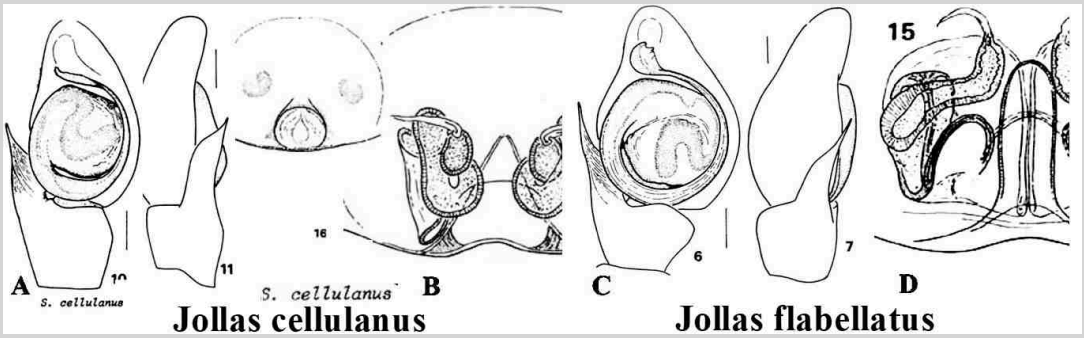
Gen. *Jollas* Simon, 1901

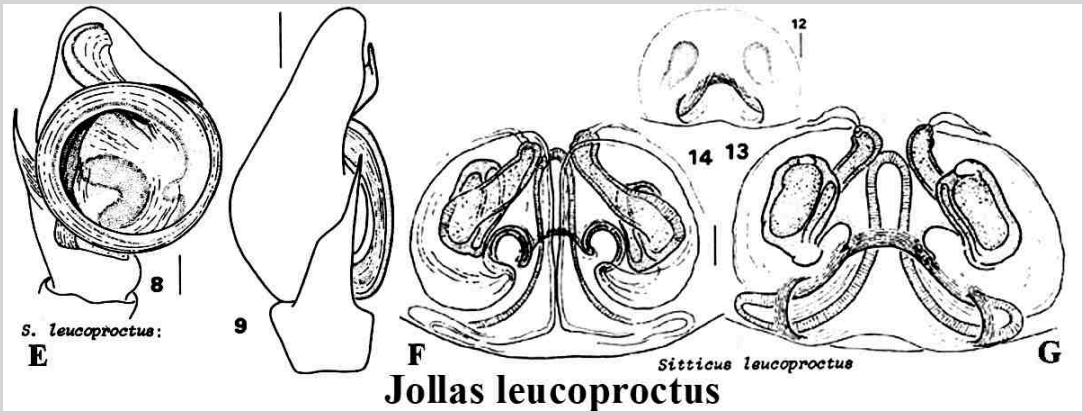
Type species *Jollas geniculatus* (5 species)
See more species at Jollas-Q+M

ATTENTION. I place the species below in *Jollas* following Maddison et al. (2020).



A-D - *Jollas geniculatus*, E - *Jollas sp.*
SOURCE. A-C - Proszynski J. 1987. Atlas ...: fig. 58-59 ("21085 Jollas geniculatus" "obscurus" - Mus. Paris), **D** - Galiano 1991b. Physis C. 47 (112): 18, 19, ff. 1, 5, 14-18, 25, 35, 38, 40-41, .E - Maddison 2015. Journal of Arachnology. 43: 231–292, f. 33. All ©copyrights are retained by the original authors and copyright holders, used here by their courtesy.



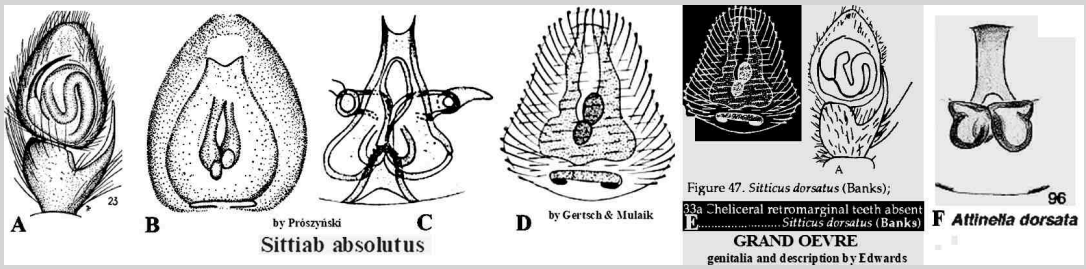


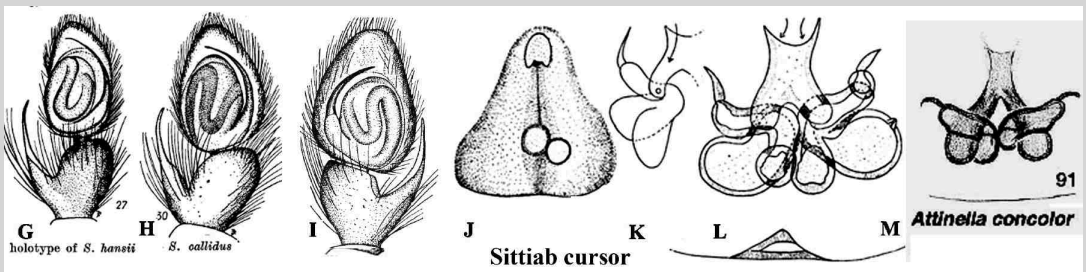
A-B - *Jollas cellulanus*, C-D - *Jollas flabellatus*, E-X - *Jollas leucoproctus*. See more species at Sitticus*(leucoproctus-group)*-Q+M.
SOURCE: Galiano M.E. 1989. Rev. Soc. ent. Argentina, 45 (1-4): 262, f. 3-5, 10-11, 16-17, 20, 23-26; 261, f. 6-7, 15, 18, 21.. 259, f 8-9, 12-14. All ©copyrights are retained by the original authors and copyright holders, used here by their courtesy.

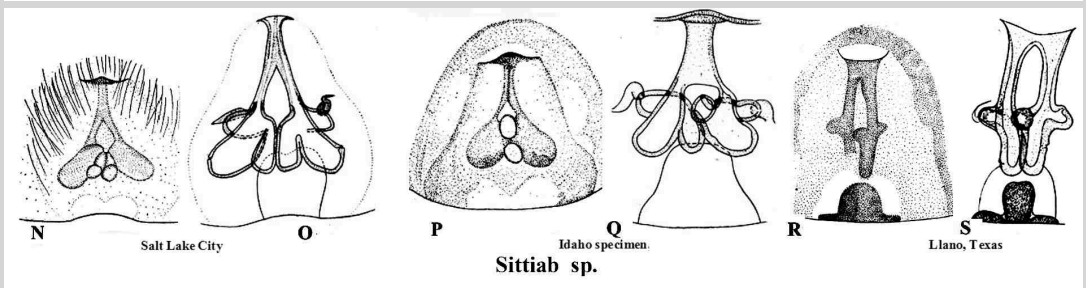
Gen. *SITTIAB* Prószynski, 2017

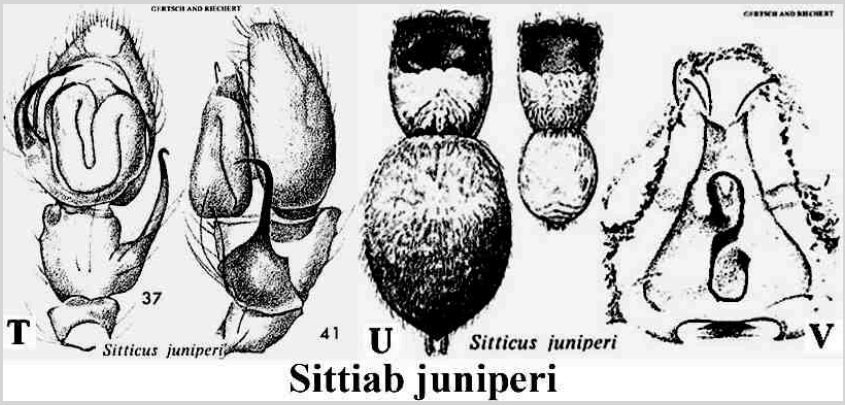
Type species *Sitticus absolutus* (3 species)
See more species at Sitticus*(saxicola-group)*-Q+M

ATTENTION. Diversity among unidentified specimens suggest existence of more species, pending research.









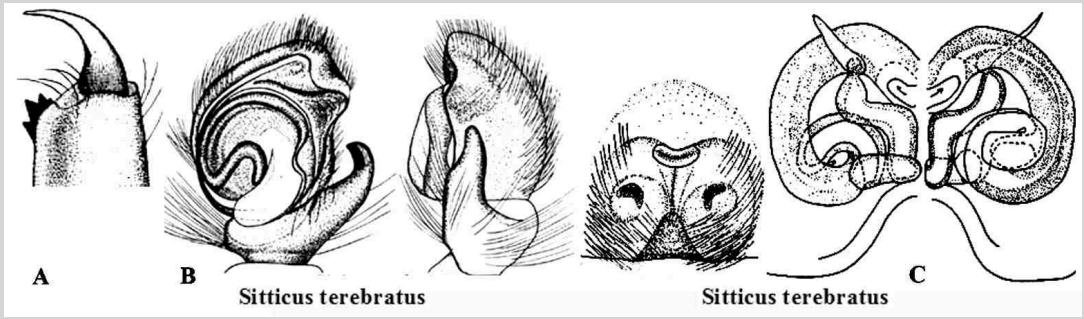
Sittiab juniperi

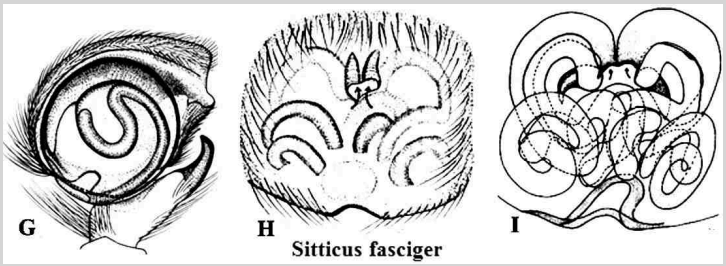
A-C - *Sittiab absolutus* - palp, epigyne and spermathecae, D - same, epigyne by Gertsch and Mulaik and its copy labeled *"Sitticus dorsatus"* by Edwards - palp. epigyne and one line morphological description (E). F - the same species captioned as *Attinella dorsata* by Maddison, G-M - *Sittiab cursor*, N-S - Three *Sittiab* sp. - diversity of epigyne and their internal structure [note that external appearance give unreliable information on internal structure] of undescribed species from various location in USA, T-V - *Sittiab juniperi*.
SOURCE: **A-C**, G-M - Prószyński (1973a) *Annales Zoologici*, **30**: : 79, f. 17-44; 86-89, f 20-21, 45-49, D - Gertsch, W. J. & Mulaik, S. (1936a) *American Museum Novitates* **851**: 20, 19-20, E- Edwards in: Brenne et al. (1993) 67, f. 47A-B, F, M - -Maddison,et al. (2020). *ZooKeys* **925**: 28, f 91, 96, T-V - Gertsch, Riechert 1976. Am. Mus. Novit. 2604: 21, f 37-41.

COMMENT: I have studied and redescribed species placed later in *Sittiab* (Prószyński 1973a Revision of the spider genus *Sitticus* Simon, 1901 (Aranei, Salticidae), III. *Sitticus penicillatus* (Simon, 1875) and related forms. *Annales Zoologici, Warszawa* **30**: 71-95.) on type specimens lent me by mail by W. J. Gertsch and H. W. Levi, they have also sent me list of collections under their care, which I repeated in my 1971e Catalogue of Salticidae (Aranei) specimens kept in major collections of the world. *Annales Zoologici, Warszawa* **28**: 367-519. A good illustration of obstacles I had to overcome is the fact that I was prevented from using my Post-Doc Fellowship at Harvard Museum of Comparative Zoology, granted in 1967, because my authorities refused to extend my passport, so I came to Harvard only in 1986 and 1990. None the less my results were standing for 50 years, when become continued by W. P. Maddison - who was a PhD student at Harvard in 1980ties. In his recent paper Maddison et al., 2020, (*ZooKeys* **925**: 1-54) revives genus *Attinella* and has examined its types (of whose existence I was not informed in 1971, 1973) but his drawings of internal structure of epigyne (the first during 125 years for those species, if not to count raether peculiar drawings by Edwards - see Fig. E, above) are imprecise, his descriptions in words ("relatively wide carapace") are, as usually, inconclusive. So he may be right, but provisionally I stick to older synonyms.

Gen. *Sitticus* Simon, 1901, *sensu stricto*

Type species *Araneus terebratu* (4 species)
See more species at Sitticus*(terebratus-group)*-Q+M





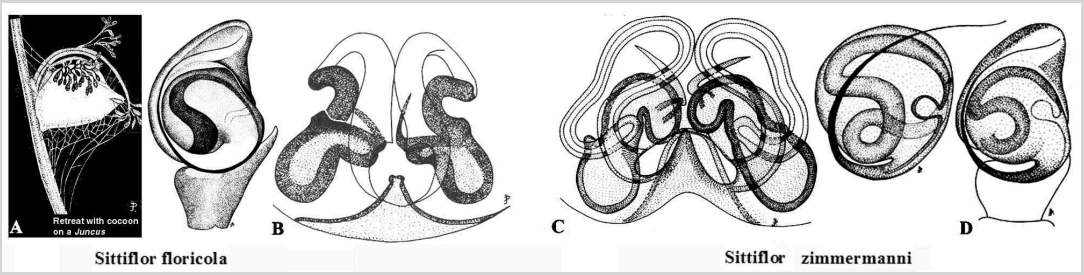
A-F - *Sitticus terebratus* (female ducts simplified - there is more coils) and G-I - *Sitticus fasciger*.
SOURCE: A-C, G-I - Proszynski J. 1968c. Ann. zool. 26: 399-402, f 1-3, 9-16. Bohdanowicz & Prószyński, 1987: 129, f. 258-260, D-F - ©Photo J. Lissner.

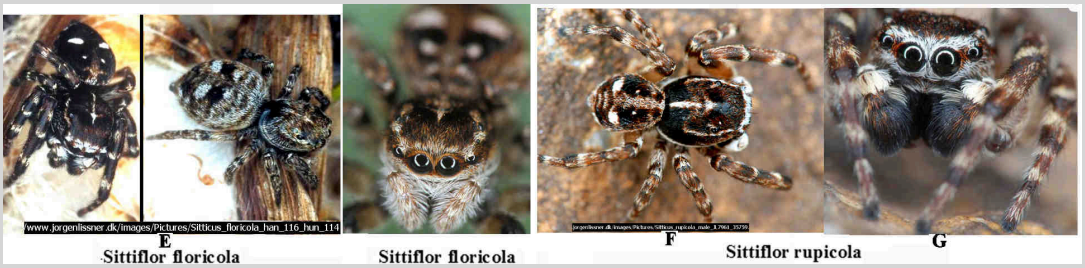
Gen. *SITTIFLOR* Prószynski, 2017

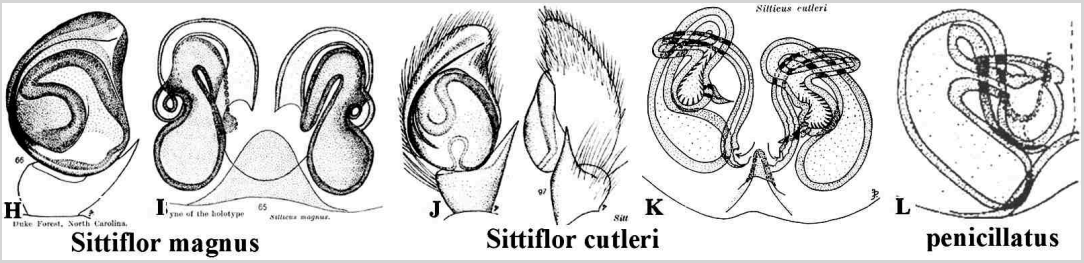
Type species *Attus zimmermanni* Simon, 1877 **amended!** (14 species)
See more species at **Sitticus*(floricola-group)*-Q+M**

*FOOTNOTE. The acronymic name "SITTIFLOR" was introduced as a part of splitting the previous genus *Sitticus* s. l., for stressing obvious phylogenetical relationships of all new genera by retaining mutual first syllable "*Sitti-*" in their names, so they could be kept close in all written records. This simple invention was jeopardized by finding older **subgenus**(!) name, never used after first delimitation 75

years ago - whose replacement is supposed to be mandated by nomenclatorical rules, although could be waived by applying to the International Commission on Zoological Nomenclature, or, assuming good will, by substitution of related species as the type species (actually proposed here). But a goodwill? Simultaneously and in collusion with publication of the memorable paper by Knopf et al.(2019) appealing to the scientific community to **"ignore names"** by Prószyński, **"which bring nothing but chaos in salticid systematic"**? In those circumstance I have nothing to lose and can therefore keep any name I fancy. (-) J. Prószyński.







A-B, E - *SITTIFLOR floricola*, C-D - *SITTIFLOR zimmermanni,* F-G - *SITTIFLOR rupicola,* H-I - *SITTIFLOR magnus,* J-K - *SITTIFLOR cutleri,* L - *SITTIFLOR* [? = *Attulus*?] *penicillatus.*

SOURCE: A-D, E, H-K - Proszynski J. 1980 Annales zoologici, 36: 1-35, L - Bohdanowicz & Prószyński, 1987:*Annales Zoologici, Warszawa* **41**: 130, f. 261-267, E-G - ©Photo J. Lissner. All ©copyrights are retained by the original authors and copyright holders, used here by their courtesy.

Gen. *Sittilong* Prószyński, 2017

Type species *Attus longipes* (3 species)

See more species at Sitticus*(longipes-group)*-Q+M

COMMENT: E. M. Andreeva, who got experience in study of Central Asian mountain spiders, has called my attention to "high mountains melanism" - dark body coloration speeding up sunshine body warming. The species, shown below, lives in Alps, between 2300 - 3500 m.

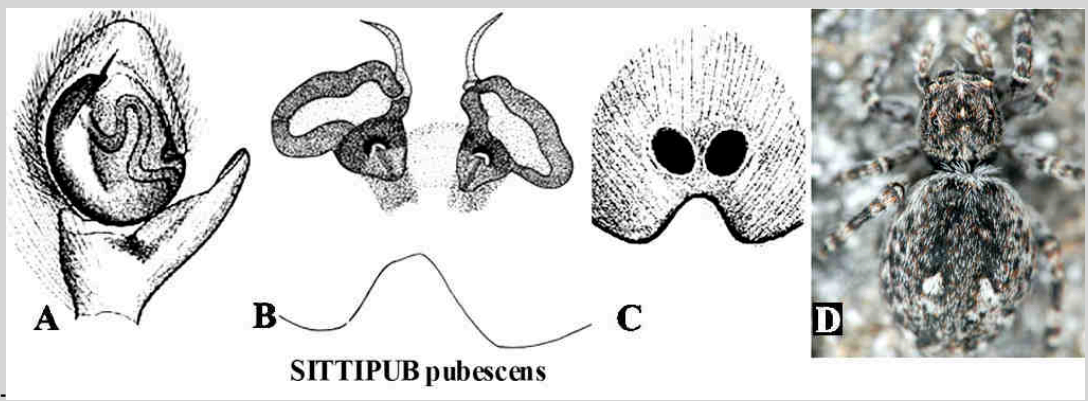
A-D - *Sittilong longipes*.

SOURCE: Prószyński, 2017a: 44, f. 1P, 3J, ©Photo by B. Knoflach.. All ©copyrights are retained by the original authors and copyright holders, used here by their courtesy.

Gen. *SITTIPUB* Prószyński, 2016

Type species *Aranea pubescens* (3 species)

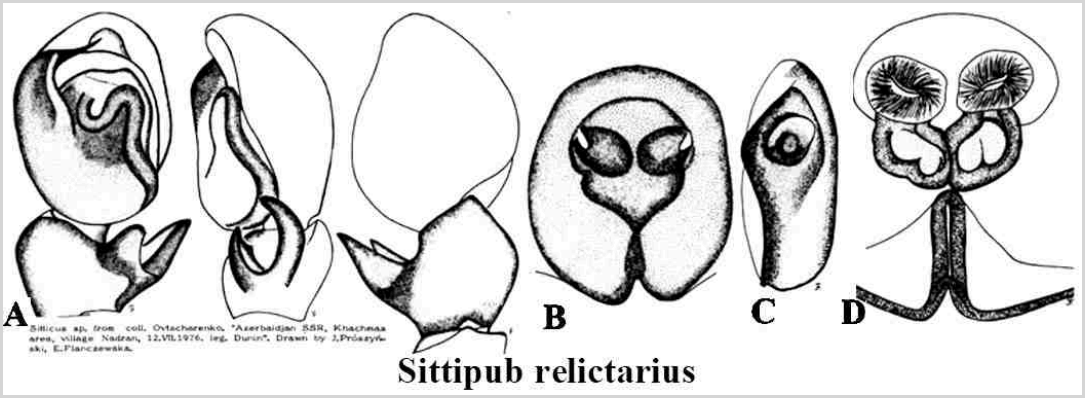
See more species at Sittipub-Q+M



X-

A-D - *SITTIPUB pubescens.*

SOURCE: A - Zabka 1997. Fauna Polski 19: 5-187, f 346-351, B-C - Proszynski 1987: 97, D - © Photo J. Lissner. All ©copyrights are retained by the original authors and copyright holders, used here by their courtesy.

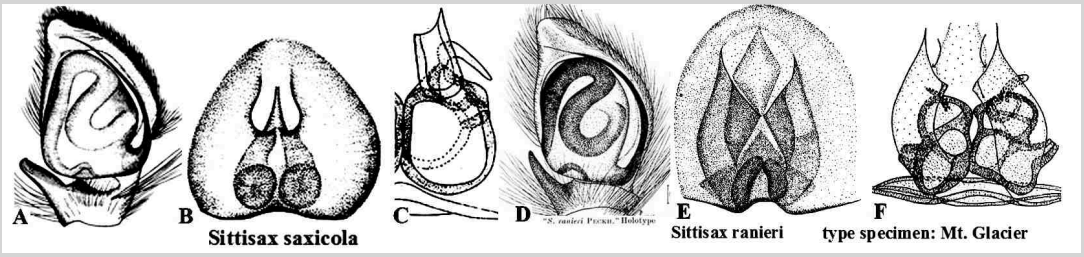


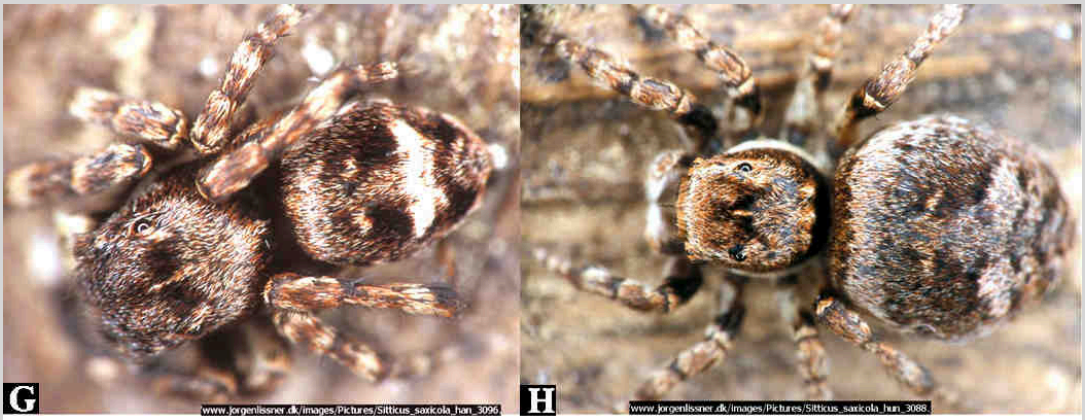
A-D - *SITTIAB relictarius* (Logunov. 1998) - as *Sitticus* sp. - male become later paratype from Nadran, female paratype from Naltschik (drawn by Prószyński & Flanczewska).
SOURCE: Proszynski J. 1987. Atlas ...: 99-100. All ©copyrights are retained by the original authors and copyright holders, used here by their courtesy.

Gen. *Sittisax* Prószyński, 2017

Type species *Euophrys saxicola* (3 species)
See more species at Sitticus*(saxicola-group)*-Q+M

Diagnosis. Male palps and cheliceral dentition agree with other SITTICINES, epigyne with very short, broad ducts and double spherical chambers of spermathecae. Alive males of *Sittisax saxicola* strike by ginger hue.



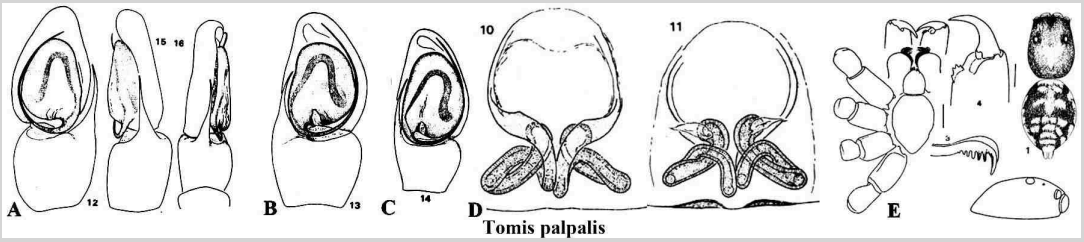


A - *Sittisax saxicola* palp and spermatheca; **A1-4, B** - *Sittisax ranieri* - epigyne and its internal structure **C-F** - *Sittisax saxicola,* male and female.
SOURCE: Prószyński, 1971b: 188, f. 1, 3-13, 192, f. 14-30, ©Photo J. Lissner. All ©copyrights are retained by the original authors and copyright holders, used here by their courtesy.

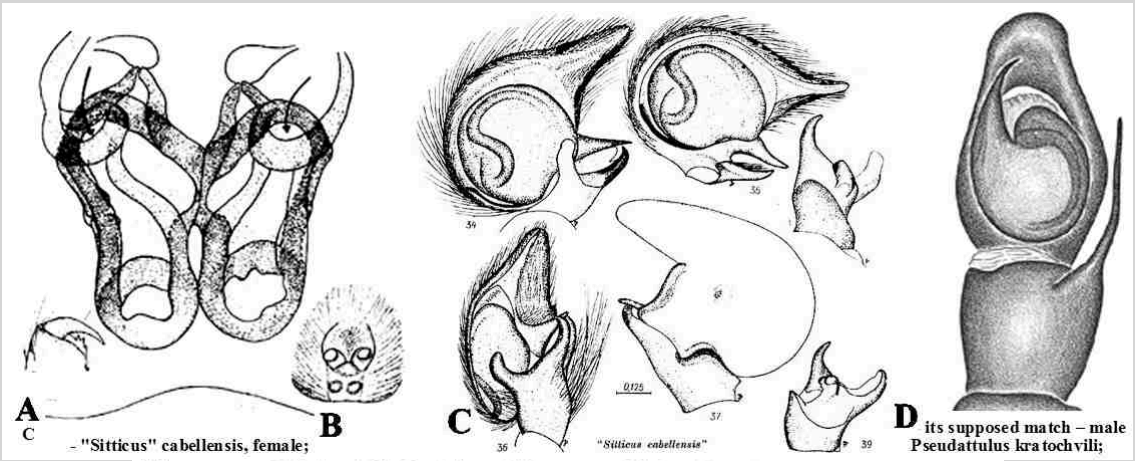
A-E - *Sittisax*[?] *dzieduszyckii*, male and female.
SOURCE: Prószyński, J. (1987). *Atlas rysunków diagnostycznych mniej znanych Salticidae 2*. Zeszyty Naukowe WSRP, Siedlce, 96. All ©copyrights are retained by the original authors and copyright holders, used here by their courtesy.

Gen. *Tomis* F. O. Pickard-Cambridge, 1901

Type species *Tomis palpalis* (3 species))
See (2 species) at Sitticus(*palpalis-group*)-Q+M



A-E - *Tomis palpalis*
SOURCE: Galiano M.E. 1991. Acta Zool. Lilloana 40, 1: 61, ff. 1-5, 8, 10-16.. All ©copyrights are retained by the original authors and copyright holders, used here by their courtesy..



E

J. Prószyński Revision of the genus *Sitticus* Sim. II.

Sitticus cabellensis sp. n.

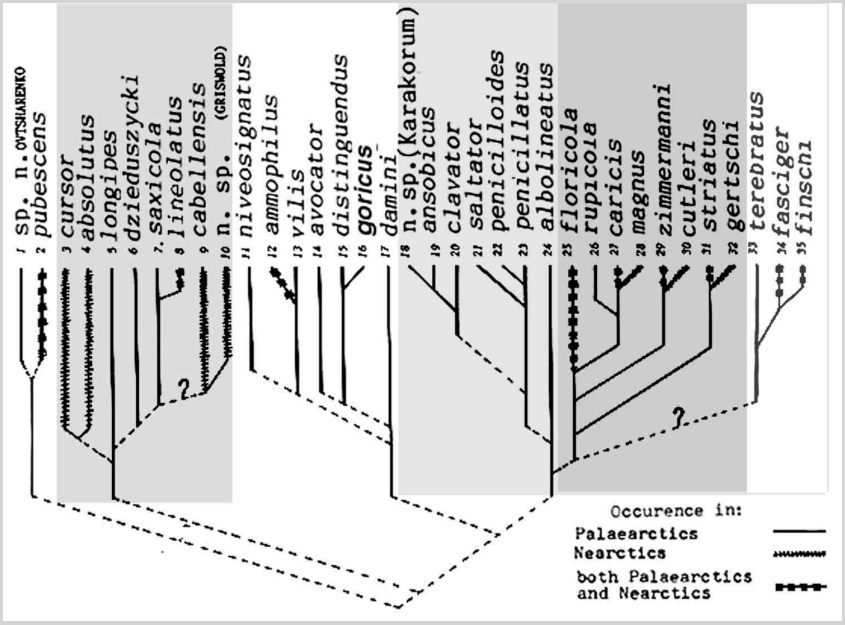
Material: "20841. Sit. p°. Cabello" — 1 ♀ — holotype, 1 ♂ (if really of the same species) — allotype — coll. E. Simon, MNHN, Paris.

Remark. The classification of the female specimen into the genus *Sitticus* Simon, 1901 seems justified in view of its cheliceral dentition (fig. 31), the proportions of the body and the resemblances of its genital organs to the *S. saxicola* — *S. lineolatus* group. The structure of genital organs of the male specimen, however, gives rise to serious doubts whether that classification is justified. Male copulatory organ is quite special and while completely different from *S. saxicola* group it bears little resemblance to the remaining *Sitticus* species. Of the other hand, however, general appearance of the male resembles female quite well and its cheliceral dentition is definitely *Sitticus*-like.

A-C - *Sittisax cabellensis*, D - *Pseudattulus kratochvili*, male, misplaced, E - facsimile of a remark on *Sittisax cabellensis*.
SOURCE: A-C - Prószyński, J. (1971b). Revision of the spider genus *Sitticus* Simon, 1901 (Aranei, Salticidae). II. *Sitticus saxicola* (C. L. Koch, 1848) and related forms. *Annales Zoologici,* **28**: 198, f. 31-39 , 2017a: 48, f. 2C, D - Ruiz, Brescovit & Lise, 2007: 377, f. 1-5. All ©copyrights are retained by the original authors and copyright holders, used here by their courtesy.
COMMENT: Nonsensical (in view of striking differences demonstrated in documentation above) inclusion of "*Sitticus" cabellensis* and *Pseudattulus kratochvili* to the genus *Tomis* has great advantage of getting rid of these two insufficiently studied species from the genus *Sitticus*. Let South American arachnologists cope with that clumsy issue.

Addition

***Sitticus* s. l. - historical (1983) view on distribution and species relationship**



Source: Prószyński, J. (**1983d**). Tracing the history of a genus from its geographical range by the example of *Sitticus* (Arachnida: Araneae: Salticidae). *Verhandlungen des Naturwissenschaftlichen Vereins in Hamburg* **26**: 161-179.

COMMENT. In spite of very much ado about progress in modern science, especially molecular phylogeny, the basic understanding of relationship among species of *Sitticus* s. l. and their distribution did not change much since 1983.