Revista Ibérica de Aracnología, nº **36** (30/06/2020): 141–143.
Grupo Ibérico de Aracnología (S.E.A.). ISSN: 1576 - 9518.

First Record of the family Charontidae (Amblypygi) from the Seychelles

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Abstract: An undetermined species belonging to the genus *Charon* Karsch, 1879 (Charontidae) is recorded from the Seychelles, on the basis of an immature specimen collected on February 2019 in an urban home in the village of Anse Boileau, Mahé island. This is the first record of this family from the Seychelles. A key is provided for the identification of the three Seychellois amblypygids, each belonging to a different family: Charinidae, Charontidae and Phrynichidae.
Key words: Amblypygi, Charontidae, whip spider, synanthropic species, Seychelles, Mahé.

Primer registro de la familia Charontidae (Amblypygi) de las Seychelles
Resumen: Se registra la presencia de una especie indeterminada del género *Charon* Karsch, 1879 (Charontidae) en las Seychelles, sobre la base de un ejemplar inmaduro recolectado en febrero de 2019 en el interior una vivienda urbana en el poblado de Anse Boileau, Mahé. Este representa el primer registro de esta familia en las Seychelles. Se incluye una clave para la identificación de las tres especies de amblipígidos que habitan las Seychelles, cada una perteneciente a una familia diferente: Charinidae, Charontidae y Phrynichidae.
Palabras clave: Amblypygi, Charontidae, amblipígido, especie sinantrópica, Seychelles, Mahé.

The amblypypid fauna of Seychelles is integrated by the phrynichid *Phrynichus scaber* (Gervais, 1844), which is a threatened species (Gerlach, 2014), and the charinid *Charinus seychellarum* Kraepelin, 1898, that populates some of the main islands of that archipelago: Mahé, Praslin, and Silhouette (Benoit, 1979; Weygoldt, 1999). The former species was erroneously recorded from some African countries, but Weygoldt (1998) designated a neotype from Mahé, Seychelles, and restricted its distribution to this archipelago, where it is known from Aride, Cousin, Cousine, Frigate, Mahé and Silhouette. A specimen of *P. scaber*, supposedly collected in Zanzibar, Tanzania, was mentioned by Weygoldt (1998: 43), whom also cited the record given by Gerlach *et al*. (1997) from Round Island, an islet belonging to Mauritius, where this species has become extinct as consequence of habitat destruction by goats and rabbits (Gerlach, 2014).

On February 02, 2019, at night, the junior author collected a juvenile specimen of *Charon* sp. (Fig. 1, 2 A-C), in the bathroom of an urban home in Anse Boileau village (-4.713131S, 55.485162E), Mahé, at aproximately 800 m from the coast (Fig. 3). Until now, no other specimens have been observed; nevertheless, it is possible that the examined specimen constitutes part of a small population stablished in this village or in the island.

Some measurements (in mm) and characters of this specimen are the followings: total length 9.0; carapace: length 3.5, greatest width 6.0. Pedipalp: femur length 4.6; patella length 4.9; tibia length 1.3. For most relevant pedipalp spination, see Fig. 2 A-C. Leg IV: basitibia with four pseudo-articles (Fig. 4 C); distitibia has 30 trichobothria, as *D. dantei*, but some with a different pattern. The examined specimen will be deposited in the Institute of Ecology and Systematics, Havana, Cuba.

The genus *Charon* Karsch, 1879 contains seven species distributed in the Indo-Pacific Region: Northern Australia, Christmas Island, Solomon islands, Indonesia, Malaysia, Palau, Papua New Guinea, Philippines, Singapore, Orchid island (Taiwan) and La Reunion island (Maquart *et al*., 2018 and references therein). Consequently, Mahé becomes the most northwestern locality for a member of this genus, and also for the family. This is the first time that the family Charontidae is recorded from Seychelles.

Seychelles and the Mascarene archipelago share several strongly related genera and species of insects, arachnids (including whip spiders) and terrestrial isopods (Gerlach *et al*., 1997; Schmidt & Leistikow, 2004); therefore, it would be not a surprise that both insular territories share the same amblypygid species: *Charon dantei*

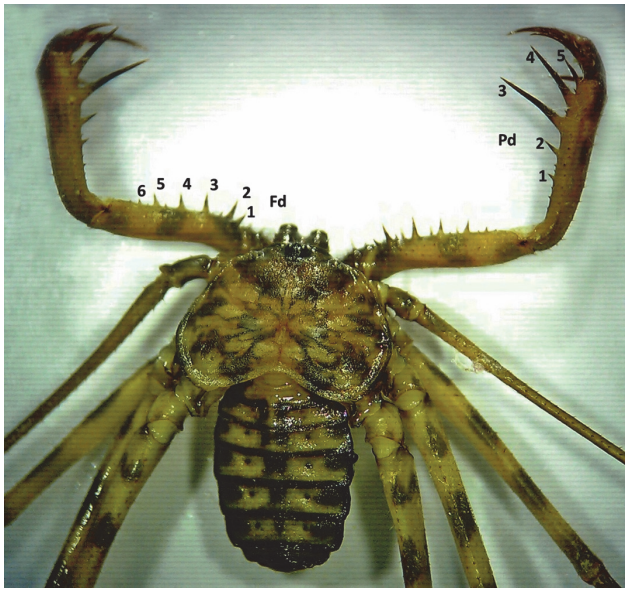


Fig. 1. *Charon* sp. (immature specimen from Anse Boileau village, Mahé, Seychelles). Partial aspect of the dorsal habitus.

Maquart, Réveillion *et* G. Cazanove, 2018, described from La Reunion Island. Nevertheless, as adult specimens of the Seychellois species are lacking, at this moment is not possible to know neither its specific identity nor whether it is indigenous from Mahé. Some *Charon* species display synanthropic behavior, being frequently found in urban houses (Maquart *et al*., 2018).

The three genera and families of amblypygids from Seychelles may be identified as follows:

1. Basal segment of the chelicera with three internal tooth (Fig. 4 A); basitibia of leg IV undivided; legs II-IV without pulvilli on the tarsus; pedipalp patella with only two large dorsal spines (in immatures there are three spines, being the basal the shortest) ..... Phrynichidae: *Phrynichus scaber*

– Basal segment of the chelicera with four internal tooth (Fig. 4 B); basitibia of leg IV divided in four pseudo-articles (Fig. 4 C); legs II-IV with pulvilli at the end of the tarsus (Fig. 4 D); pedipalp patella with more than two large dorsal spines..... **2**

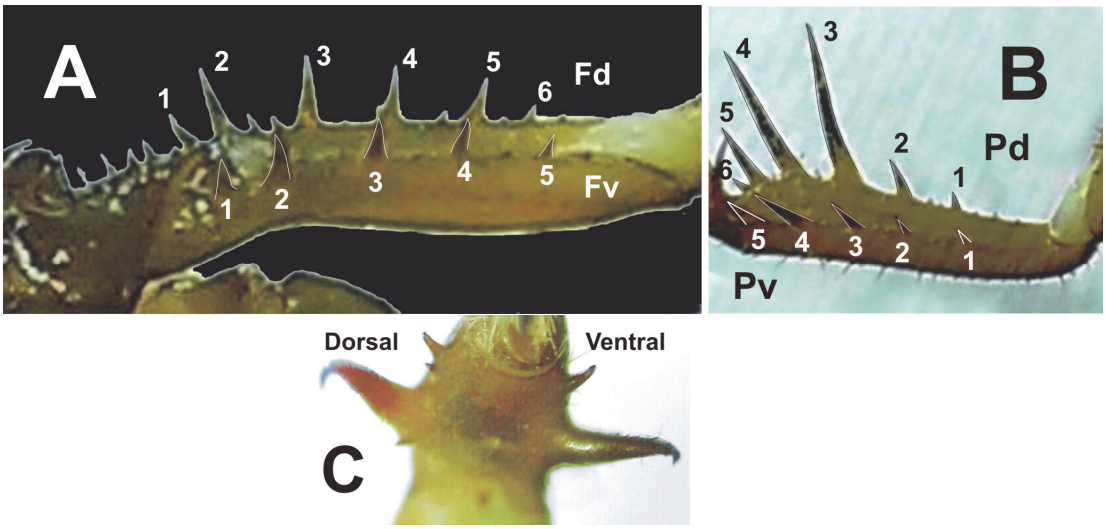


Fig. 2. *Charon* sp. (immature specimen from Anse Boileau village, Mahé, Seychelles). Pedipalp: **A–B**, femur (**A**) and patella (**B**) in ventral internal view; **C**, tibia, internal view. Some spines have been outlined for best understanding.

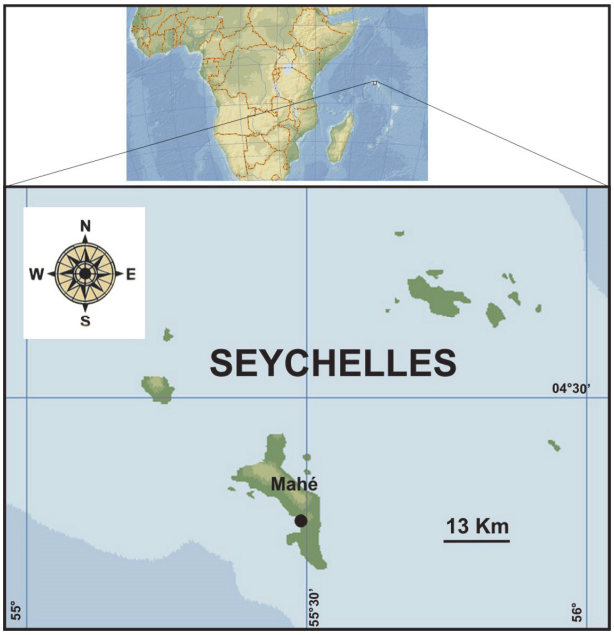


Fig. 3. Geographical distribution of *Charon* sp. on Seychelles.

2. Small species (lesser than 10 mm); pedipalp tarsus clearly divided by a suture, with two dorsal spines on the tarsus (Fig. 4 E) . ..... Charinidae: *Charinus seychellarum*

– Larger species (more than 15 mm); pedipalp tarsus undivided, without dorsal spines on the tarsus .... Charontidae: *Charon* sp.

Acknowledgements

Some bibliography was kindly provided by Gustavo Miranda (National Museum of Natural History, Smithsonian Institution, Washington DC, USA). Anonymous referees and Marc Naiken (Mahé, Seychelles) contributed with suggestions and helped with English editing to improve the manuscript.

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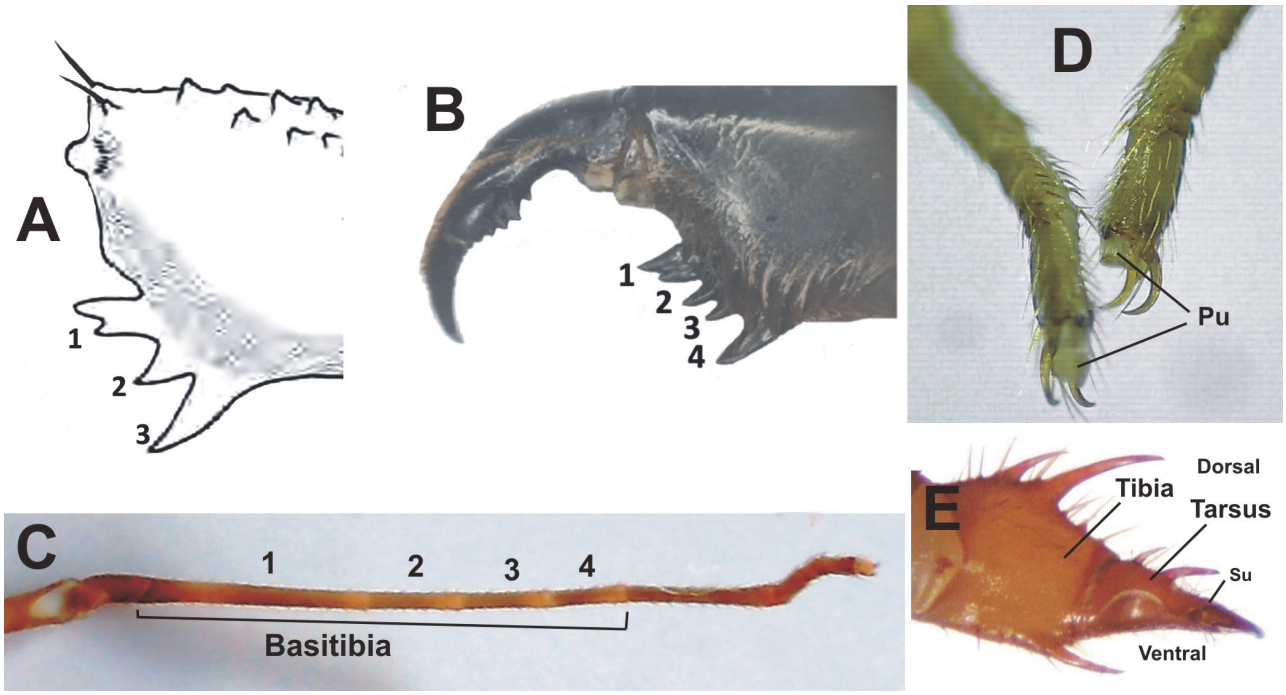


Fig. 4. Some characters for identification of the Seychellois amblypygids. **A**, *Phrynichus scaber*, distal end of the basal segment of the chelicera, showing the internal tooth (1-3); modified from Weygold (1998). **B**, *Charon dantei*, basal segment of the chelicera, showing the internal tooth (1-4); modified from Maquart *et al*. (2018). **C-D**, *Charon* sp. from Mahé: distal articles of leg IV. **E**, *Charinus* sp., distal articles of the pedipalp, internal view. Symbols: Pu, pulvillus; Su, suture.