

## AUSTROPSOPILIO HARVESTMEN (OPILIONES, CYPHOPALPATORES, CADDIDAE) DISCOVERED IN SOUTH AMERICA

El opilión *Austropsopilio* (Opiliones, Cyphopalpatores, Caddidae) encontrado en Sudamérica

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### ABSTRACT

*Austropsopilio* Forster, to this time known only from Australia and Tasmania, is recorded from South America (Argentina and Chile). All the material was collected from wet, Valdivian lowland forest and consisted of only juveniles and a badly preserved female. Because of the state of the specimens, no specific name was applied. New collections of the genus are also recorded for Australia.

### RESUMEN

El género *Austropsopilio* Forster, conocido hasta el momento para Australia y Tasmania, es mencionado por primera vez para Sudamérica (Argentina y Chile). Todo el material fue hallado en bosque húmedo valdiviano y consiste en juveniles y una hembra mal preservada, por lo que el nivel específico no es tratado. Se mencionan también nuevas citas para Australia.

KEYWORDS: Opiliones. Caddidae. *Austropsopilio*. Systematics. Neotropics. Australia.

### INTRODUCTION

Harvestmen of the family Caddidae are now distributed around the world in isolated localities. All species are small, inconspicuous, and primarily found in leaf litter, moss, and vegetable debris. Because of this cryptic lifestyle, knowled-

ge of the group is scarce. Members of the Caddidae are divided into two subfamilies (Shear, 1975): Caddinae and Acropsopilioninae. The Caddinae is composed of two recent species and one fossil species of the genus *Caddo* Banks. The Oligocene age species of *Caddo* is known from Baltic amber; whereas the two recent species are both known from northeastern North America and Japan (Suzuki, 1976).

The Acropsopilioninae consist of 16 described species among four genera: *Acropsopilio* Silvestri, *Austropsopilio* Forster, *Caddella* Hirst, and *Tasmanopilio* Hickman (Cekalovic Kuschevich, 1974; Gruber, 1974; Shear, 1975; Cantrell, 1980; Starega, 1988). The two species of *Tasmanopilio* are restricted to Tasmania, and the four

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species of *Caddella* are restricted to southern Africa. The four *Austropsopilio* spp., currently known, are from Australia and Tasmania. The six species of *Acropsopilio* are found in (1) Australia, (2) New Zealand, (3) Chile, (4) Chile-Argentina-Brazil, (5) México, and (6) eastern U.S.A.-Canadá-Japan. No males are known for any of the species of *Acropsopilio*.

The genus *Austropsopilio* was described by Forster (1955) for his new species *A. novahollan-*

*diae*. The single juvenile specimen on which this species was based came from Queensland, Australia. Two years later, Hickman (1957) described a second species of the genus, *A. cygneus*, from Tasmania. In the same paper, Hickman described a new genus and two new species, *Tasmanopilio fuscus* and *T. megalops*, from Tasmania. Although Shear (1975) relegates *Tasmanopilio* as a junior synonym of *Austropsopilio*, this action was done without examination of any

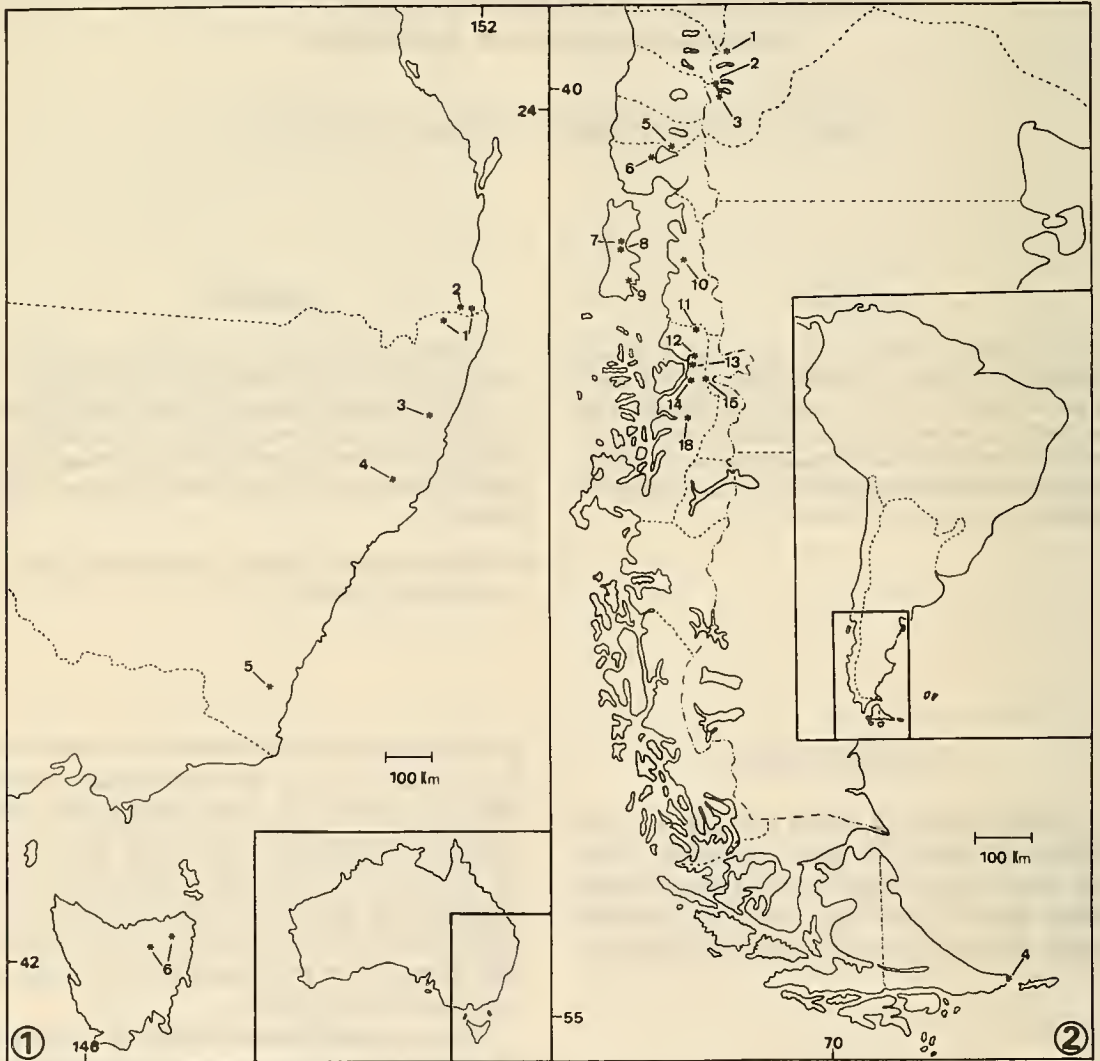


FIG. 1. Distribution of *Austropsopilio* in Australia. 1: *A. novahollandiae* Forster, 2: *A.* sp. (female and juveniles), 3: *A. alatus* Cantrell, 4: *A.* sp. (juveniles), 5: *A. inermis* Cantrell, 6: *A. cygneus* Hickman.

FIG. 2. Distribution of *Austropsopilio* in South America. Argentina: 1: Quillén, 2: Hua-Hum, 3: Pucará, 4: Buen Suceso. Chile: 5: Osorno, 6: Frutillar, 7: Piruquina, 8: Canán, 9: Coinco, 10: Río Amarillo, 11: Río Palena, 12-13: Puyuguapi, 14: Queulat, 15: Cisne Medio, 16: Río Simpson. (For further details see text).

Tasmanian material. Gruber (1974) examined both typical *Austropsopilio* and *Tasmanopilio* from Tasmania and found them to be distinct. The two other described species of *Austropsopilio* were named by Cantrell (1980) from New South Wales, Australia. The known distribution, to this time, for the genus *Austropsopilio* is from the islands of Tasmania and Australia (Fig. 1).

Recent collecting trips in Chile and Argentina have revealed the presence of *Austropsopilio* in the New World. This find is very exciting and of considerable biogeographical interest. Thus far, this genus is unrecorded from other southern continents.

All specimens, except for a badly preserved female, of *Austropsopilio* known from South America are juveniles. It is for that reason we do not formally name the probably new taxon. Juveniles of the various described species from Australia are difficult to distinguish. Based on the extended distribution of *Austropsopilio* in South America, it is likely that more than one species is present. It is the purpose of the present publication only to report the finding of the genus and comment on its distribution and some data on the biotopes.

During the course of verifying the identity of the South American *Austropsopilio*, several collections from Australia were examined. The collections revealed the first known adult males as well as several unreported females and juveniles.

#### New Records from Australia

*Austropsopilio* spp.- New South Wales: Barrington, 10 Feb. 1965, G. Monteith, 2 juv. (UQIC); O'Reillys, Border Track, 8 Oct. 1979, G.B. Monteith, 1 juv. (QM); O'Reilly's Guest House, Lamington Tableland, 6 June 1970, D.L. Hancock, 1 female (UQIC).

*Austropsopilio altus* Cantrell - New South Wales: New England National Park, 22 Mar. 1980, G.B. Monteith, 1 male, 1 female (QM); Point Lookout, upper New England National Park, 21 Mar. 1980-16 Mar. 1981, 1 male, 1 juv. (QM, GM 100A); 21 Mar. 1980-16 Mar. 1981, 1 male, 2 females, 1 juv. (QM, GM 100B).

*Austropsopilio novaehollandiae* Forster -Queensland: Mt. Hobwee, Lamington National Park, 6 Ap. 1976, V.E. Davies, R.J. Raven, 1 male, 1 female (QM); Mt. Bithongabel, Lamington National Park, 8 Oct. 1979, G.B. Monteith, 1 male (QM); New South Wales. *Nothofagus* Mt. via Woodenbong, 17 June 1982, G. Monteith, G. Thompson, 1 female (QM).

Members of *Austropsopilio* are easily recognized by the shape of their bodies and pedipalps, prominent ocular tubercle (Hickman, 1957: figs. 14-16; Cantrell, 1980: figs. 18-25), and small size (about 2 mm). The available collection data reveal Berlese samples of litter and moss are the best means of obtaining examples of this genus, in both New and Old Worlds. Such collection from New Zealand (especially areas with *Nothofagus* spp.) should be informative.

Except for the above mentioned single badly preserved female, all *Austropsopilio* specimens known from South America are juveniles. The single adult was collected in early spring (29 Sept.); whereas juveniles were collected during late spring and summer (23 Nov. to 22 Feb.). The known localities of this genus in South America are mapped in Fig. 2.

#### New Records from South America

*Austropsopilio* sp.- ARGENTINA: Neuquén: Lago Quillén, 13-14 Jan. 1985, E. Maury, 3 juv. (MACN 8751); Hua-Hum, 23-25 Nov. 1987, E. Maury, 1 juv. (MACN 8746); Pucará, Lago Lacar, 19 Jan. 1972, L. Herman, 1 juv. (AMNH); Tierra del Fuego: Bahía Buen Suceso, 16-31 Jan. 1986, E. Maury, 6 juv. (MACN 8747). CHILE: Osorno: Volcán Osorno, elev. 610 m., 12 Feb. 1985, N.I. Platnick and O.F. Francke, 8 juv. (AMNH); Llanquihue: Frutillar, 29 Sept. 1954, G. Kuschel, 1 female (MACN 8748); Chiloé: Píruquina, 19 Feb. 1983, T. Cekalovic, 1 juv. (MZUC); Canán, 22 Feb. 1986, T. Cekalovic, 1 juv. (MZUC); Coinco, 14 Feb. 1983, T. Cekalovic, 2 juv. (MZUC); Palena: Termas de Río Amarillo, 4 Dec. 1986, E. Maury, 1 juv. (MACN 8749); Aisén: Río Palena, 28 km N of La Junta, 6-7 Dec. 1986, E. Maury, 1 juv. (MACN 8750); 85-89 km S of Puerto Puyuguapi, 19 Jan. 1986, N.I. Platnick, P. Goloboff, T. Schuh, 1 juv. (AMNH); 102 km S of Puerto Puyuguapi, 19 Jan. 1986, N. Platnick, P. Goloboff, T. Schuh, 4 juv. (AMNH); Parque Nacional Queulat, near Puerto Cisnes, elev. 500 m., 6 Feb. 1985, N.I. Platnick, O.F. Francke, 1 juv. (AMNH); Villa Cisne Medio, 9 Feb. 1983, T. Cekalovic, 1 juv. (AMNH); Reserva Nacional Río Simpson, 22 km E. Aisén, elev. 300 m., 5 Feb. 1985, N.I. Platnick and O.F. Francke, 1 juv. (AMNH); Reserva Nacional Río Simpson, elev. 20 m., 20 Jan. 1986, N. Platnick, P. Goloboff, T. Schuh, 1 juv. (AMNH).

The areas inhabited by *Austropsopilio* were wet, typical Valdivian lowland forest, mostly of *Nothofagus*. Some areas, for instance in Aisén, were rather disturbed because of rampant cutting and burning. Almost all the specimens were ta-



ken by Berlese method from leaf litter or moss; a few specimens were found under rotten wood.

Details are available on the biotopes of two collections of *Austropsopilio* in South America. The sample from Bahía Buen Suceso was taken by berlese of litter wood of "canelo" *Drimys winteri* Forster and Forster f., "guindo" or "coihue de Magallanes" *Nothofagus betuloides* (Mirbel) Blume and "tchelia" *Berberis ilicifolia* L.f. In the same sample were examples of *Acropsopilio chilensis* Silvestri. Other opilionids present in the immediate area are *Thrasychirus dentichelis* Simon and *Thrasychirus modestus* Simon (Neopilionidae).

The sample from Hua-Hum was taken in Berlese of litter of "caña colihue" *Chusquea culeou* Desvaux. The same sample also revealed the presence of *A. chilensis*. Other opilionids present in the area are: *Thrasychirus* sp. (Neopilionidae), *Sadocus* sp., *Metagyndes* sp., *D. sp.* (Gonyleptidae), *Triakononyx* sp., *Nahuelonyx nasutus* (Ringuelet) and *Nuncia* sp. (Triakononychidae).

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