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A NEW RECORD OF *SCHENDYLOIDES ALACER* (POCOCK, 1891) FROM THE FALKLAND ISLANDS AND A REDESCRIPTION OF THE SPECIES

(*Chilopoda Geophilomorpha*)

Original as well as subsequent descriptions of the geophilomorph centipede *Schendyloides alacer* (Pocock, 1891) are quite unsatisfactory and incomplete. Therefore, we seize here the opportunity to supplement them with data originating from new material of this species recently examined by us. This study has been prompted by the examination of a specimen collected in the Falkland Islands by Prof. (Emeritus) A. Macfadyen (Coleraine, Northern Ireland) who recently sent it to one of us (L.A.P.) for identification. We have compared this specimen, as well as the additional ones from Southern Argentina, with the type series of *Scolioplanes magellanicus* Attems, 1897, which we regard as a synonym of Pocock's species, alongwith Crabill's (1964) lines. Both nominal species were described from the Straits of Magellan region. Both Pocock's and Attems's type material was checked by Crabill before synonymyzing *magellanicus* with *alacer*.

genus *Schendyloides* Attems, 1897

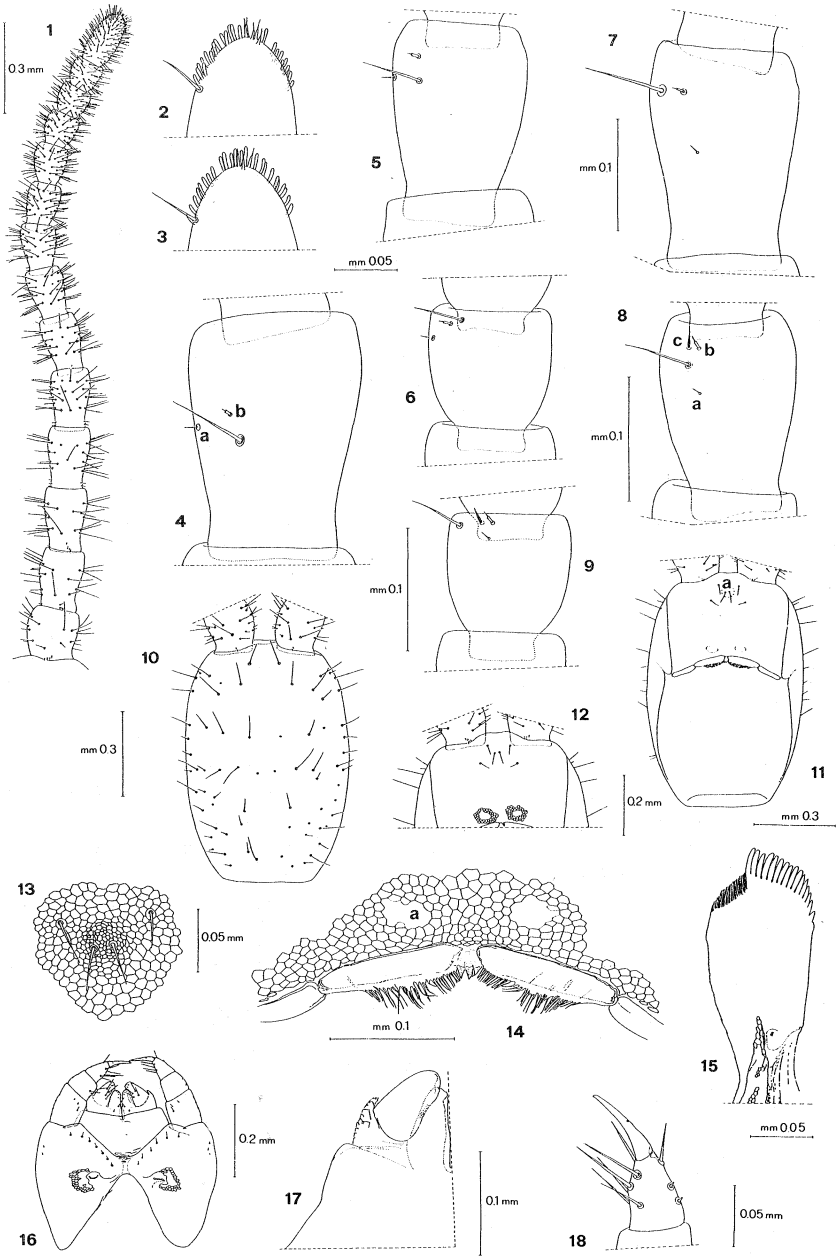
Diagnosis — Head longer than wide; clypeal fenestra with polygonal areolation; labrum: median piece large, not overlapping side pieces, distinctly dentate, the teeth large, dark and definite, sidepieces with long hyaline filaments; first maxillae: coxosternum without palps, palps of telopodite present; second maxillae: coxae narrowly connected at middle, telopodite of three articles, the last one ending in a strong smooth claw. Forcipular segment: pleurocoxosternal sutures strictly lateral. Sternal pores present; coxopleura of the last leg-bearing segment with numerous pores, each corresponding to a separate coxal organ; last pair of legs with seven podomeres, pretarsus (claw) well developed, unguiform, these legs incrassate and invested with numerous tiny setae in the male sex, slender and less pilose in the female. Anal pores present.

Type species: *Schendyla (Schendyloides) psilopa* Attems, 1897, by monotypy.

In addition to the type species, only the following one can be referred with any confidence to *Schendyloides*.

Schendyloides alacer (Pocock, 1891) (Figs. 1-41)

Geophilus alacer Pocock, 1891 - *Ann. nat. Hist.*, ser. 6, 8: 226.
Scolioplanes magellanicus Attems, 1897 - *Ergebn. Hamburg. Magalh. Sammelr.*, 2: 4.
Schizotaenia alacer, Silvestri, 1899 - *Rev. Chil.*, 3:151.
Scolioplanes magellanicus, Attems, 1902 - *Result. Voy. Belgica, Myr*: 3.
Geophilus alacer, Attems, 1903 - *Zool. Jahrb. Syst.*, 18:262.
Schizotaenia alacer, Silvestri, 1905 - *Zool. Jahrb. Syst., Suppl., 6:764.*
Schizotaenia magellanica, Verhoeff, 1924 - *Nat. Hist. Juan Fernandez*, 3:412.
Schizotaenia magellanica, Attems, 1929 - *Das Tierreich*, 52:265.
Schizotaenia alacer, Attems, 1929 - *Das Tierreich*, 52:266.
Cryotion magellanicum, Chamberlin, 1964 - *Univ. Utah Biol. Ser.* 12 (4):11.



Figs. 1-18 — *Schendyloides alacer* (Pocock). Falkland Islands, male. — 1, l. antenna, v.; 2, apical region of the last r. a.a., v.; 3, apical region of the last l. a.a., v.; 4, l. a.a. V, v.; 5, l. a.a. IX, v.; 6, l. a.a. XIII, v.; 7, l. a.a. V, d.; 8, l. a.a. IX, d.; 9, l. a.a. XIII, d.; 10, cephalic shield, d.; 11, head, v. (a, clypeal fenestra); 12, clypeus (showing plagulae) and basis of antennae, v.; 13, detail of clypeal fenestra; 14, labrum (a, right plagula); 15, l. mandible; 16, first and second maxillae, v.; 17, l. first maxilla, d.; 18, apical region of telepodite of r. second maxilla, d.

Here, and in the following legends, v. = ventral; d. = dorsal; l. = left; r. = right; a.a. = antennal article, with a and b types of setae.

Schendyloides alacer, CRABILL, 1962 - *Ent. News*, 75 (2):35.
Schizotaenia alacer, SILVA & AVALOS, 1974 - *Anal. Mus. Hist. nat. Valparaiso* n. 7:294.

Diagnosis — This species is distinguished by the reduced number of leg pairs (33) and by the presence of a few pores on anterior and posterior sterna.

Type material examined (all syntypes of *Scolioplanes magellanicus* Attems, 1897) - CHILE: Magallanes: Punta Arenas, ix. 1892, Michaelsen legit: ♂ syntype, body length 10 mm (in alcohol); ♀ syntype, body length 13 mm (head, mouthparts and a fragment of the trunk in two slides, remaining of the trunk in alcohol); ♀ lectotype, body length 22 mm (in two slides), Magallanes: Agua Fresca, 27.vii.1892, Michaelsen legit: 2 ♀ syntypes, body length 10 resp. 12 mm (both in alcohol), R.E. Crabill rev. (all in the Zoological Museum of the University Hamburg); ARGENTINA: Tierra del Fuego: Usuhaia, 14.xii.1892, Michaelsen legit: ♀ syntype, body length 13 mm (in alcohol), R.E. Crabill rev. (Zool. Museum, Hamburg).

Additional material examined — FALKLAND ISLANDS: East Falkland: 1 km north of the bridge over L'Antioja stream on the track from Port Stanley to Goose Green, 17 m a.s.l., map reference UC 928583, under stones between the west bank of l'Antioja stream and a crag with nesting Redbacked Hawk (*Buteo polyosoma* (Quoy and Gaimard, 1824)), 20.xi.1989, A. Macfadyen legit, 1 ♂, body length 18 mm (Mus. Cienc. Nat., La Plata = MLP).

ARGENTINA: Tierra del Fuego: Bahia Buen Suceso, 16.-31.i.1986, E. Maury legit: 4 ♀♀, body length 13 (specimen A), 14 (B), 17 (C) and 18 (D) mm respectively; 4 ♂♂, body length 13 (E), 14 (F), 15 (G) and 16 (H) mm respectively (MLP); Usuhaia, 15.xii.1985, N.J. Cazzaniga legit, 1 ♀, body length 15 mm (Coll. A. Minelli, Padova), 6 juveniles, body length 5 (Juv. A), 5.5 (juv. B), 7.5 (juv. C), 8 (juv. E) and 9 (juv. F) mm respectively (MLP).

The number of pairs of legs is 33 in all specimens of both sexes we have examined.

Male — Description after the specimen from the Falkland Islands.

33 pairs of legs; body length 18 mm, width 0.8 mm.

Colour of preserved specimen ochraceous-orange, head and forcipular segment darker.

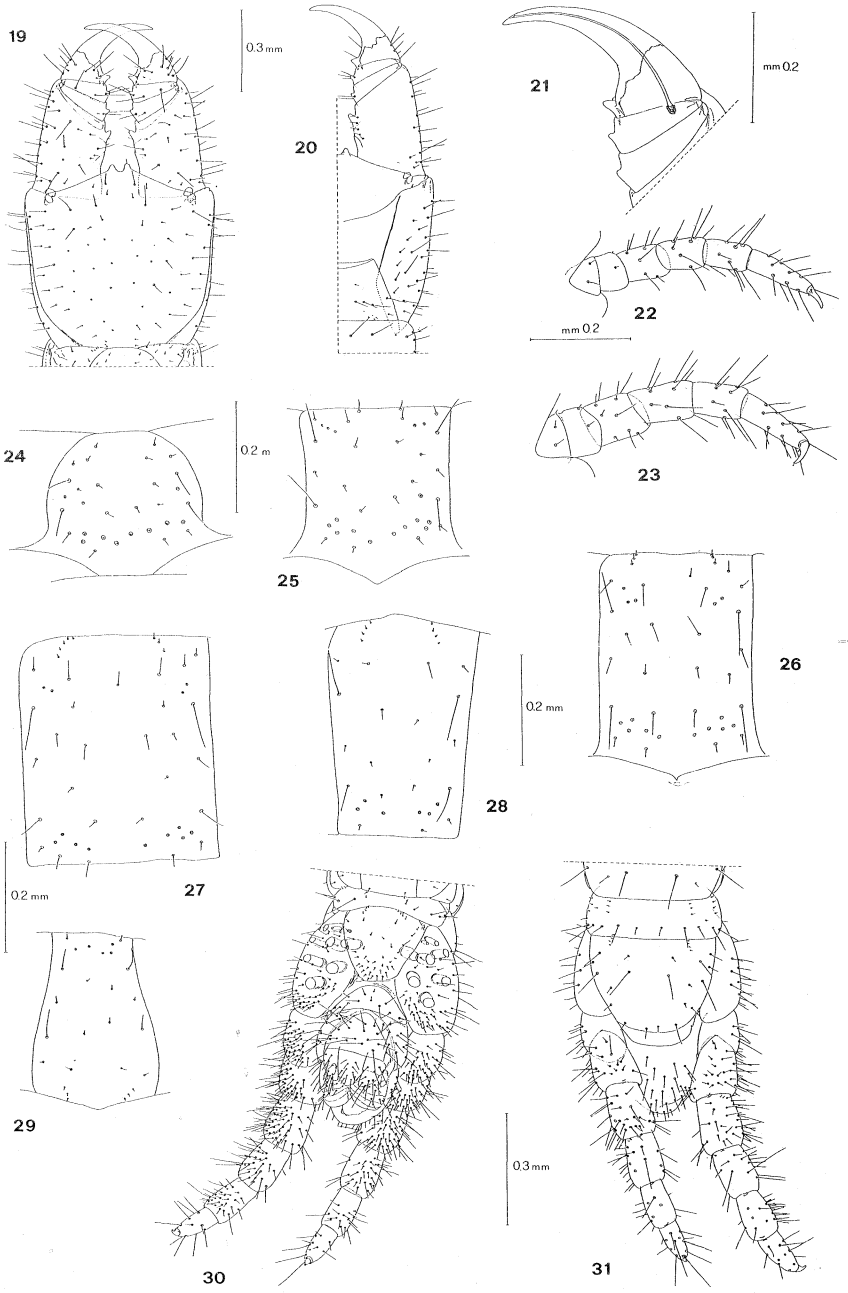
Antennae about 2.6 times longer than the cephalic plate, chaetotaxy similar on ventral and dorsal surfaces of antennomeres (shape and distribution of the setae as shown in Fig. 1). Terminal article with about 12-15 claviform sensory setae on the external border and about 10-11 on the internal. Distal end of this antennomere with about 3-5 very small specialized setae which are not apically divided (Figs. 2, 3). Dorsal and ventral surfaces of articles V, IX and XIII with very small specialized setae which on the ventral side are restricted to an internal latero-apical area and are represented by two different types *a* and *b*: type *a* setae are very thin and not apically divided, type *b* are thicker and apically divided (Fig. 4); each of articles V, IX and XIII bears 1 type *a* and 1 type *b* seta (Figs. 4-6). Specialized setae on dorsal side located in the external lateroapical and medioapical areas, represented by three different types (Fig. 8): in addition to *a* and *b*, also found on the ventral side, there are type *c* setae, obviously larger, of different shape and much darker in colour (ochraceous) than the other ones. Article V with 1 *a* seta. Articles IX and XIII with 1 *a*, 1 *b* and *c* seta each, *a* and *b* on the apicomedian part, *c* in external apicolateral position (Figs. 7-9).

Cephalic plate distinctly longer than wide (ratio 1.4 to 1); shape and chaetotaxy as in Fig. 10.

Clypeus (Figs. 11, 12, 14) with surface not uniformely reticulate and two small plagulae (*a* on Fig. 14) in front of labrum, chaetotaxy as 1 + 1 postantennal setae and 2 + 2 setae in the central area of the anterior half; no prelabral setae. Clypeal fenestra (*a* on Fig. 11) on anterior margin, small, vaguely distinguished by finer, more irregular areolation with two inclusive setae, remaining of clypeus with large areolate figures (Figs. 11, 13).

Labrum with midpiece well developed, with 3 robust dark teeth, sidepieces with 31 + 36 long hyaline filaments (Fig. 14).

Mandible as in Fig. 15, pectinate lamellae with about 16 hyaline teeth, contiguous to them there are about 25 short and thin hyaline filaments.



Figs. 19-31 — *Schendyloides alacer* (Pocock). Falkland Islands, male. — 19, forcipular segment with poison claws, ventral; 20, the same, r. half, d.; 21, detail of calyx of poison gland in l. poison claw, v.; 22, l. leg. I, v.; 23, l. leg. II, v.; 24-29, sterna I, II, VI, XI, XXX and XXXII; 30, last leg-bearing segment and terminal segments, v.; 31, the same, d.

First maxillae without setae on coxosternum, palps absent (Fig. 17); median projection of coxosternum subtriangular, well developed and provided with 1 + 1 large setae and 1 + 1 much smaller ones, 1 + 1 very small sensilla on its base and 4 + 3 on the internal apical border. Telopodite biarticulate, the basal article with a small palp, the distal one with 4 + 4 large setae, 2 + 4 very small sensilla on the internal apical border (Fig. 16).

Second maxillae with 7 + 6 setae on the internal margin of coxosternum and 2 + 3 small sensilla near its apical external margin (Fig. 16). Apical claw of telopodite well developed and smooth, shape and chaetotaxy of telopodite as in Figures 16 and 18.

Forcipulae: relative position of telopodites and cephalic shield as in Figure 37. Trochanteroprefemur, femur and tibia of telopodite with a well developed tooth on the medial apical part of the internal surface (that of the first article much bigger than the others); tarsungula with a dark well developed tooth on the basal part of the internal border; calyx of poison gland short, subcircular (Fig. 21); chaetotaxy of coxosternum, telopodites and basal plate as in Figures 19 and 20.

Legs (last pair excepted) with chaetotaxy similar throughout the body, each claw is provided on its ventrobasal part with 2 spines, one anterior, one posterior (Figs. 22,23).

Sterna provided with pores, few in number and not grouped into well defined pore fields. On sterna I and XXIV-XXXII the pores are present only on the posterior margins; on sterna II-XXIII the pores are present on both anterior and posterior margins; number or pores: 8 on sternum I, 16 on II, 15 on VI, 13 on XI, 6 on XXX and 5 on XXXII (Figs. 24-28).

Last leg-bearing segment without pleurites at the sides of pretergum; presternum not divided along the sagittal plane; form and chaetotaxy of sternum and tergum as in Figs. 30 and 31. Coxopleura with pores distributed over the ventral and lateral sides only, 8 pores on the left coxopleuron and 9 on the right; both large and small setae are present, the latter distributed in the ventroapical area near internal and posterior margins. Podomeres of terminal legs inflated; apex of the distalmost podomere with only one spine placed near the internal margin (Fig. 32); shape and chaetotaxy of podomeres as in Figures 30 and 31.

Terminal segments: intermediate tergum with posterior border convex, intermediate sternum with posterior border concave; I genital sternum with posterior border slightly concave (Fig. 30). Gonopods biarticulate, basal article with 4 setae, distal article with 6 (Fig. 34). Penis dorsally with 3 + 3 apical setae (Fig. 33). Anal pores present.

Variability — Other male specimens examined presented 4 teeth (rather than 3) on midpiece of labrum (Figs. 40-41) and sterna II to XXVII-XXIX (rather than II to XXIII) with pores on anterior and posterior margins.

Female — Description after specimen D from Argentina.

Pairs of legs 33, body length 18 mm, maximum body width 0.9 mm.

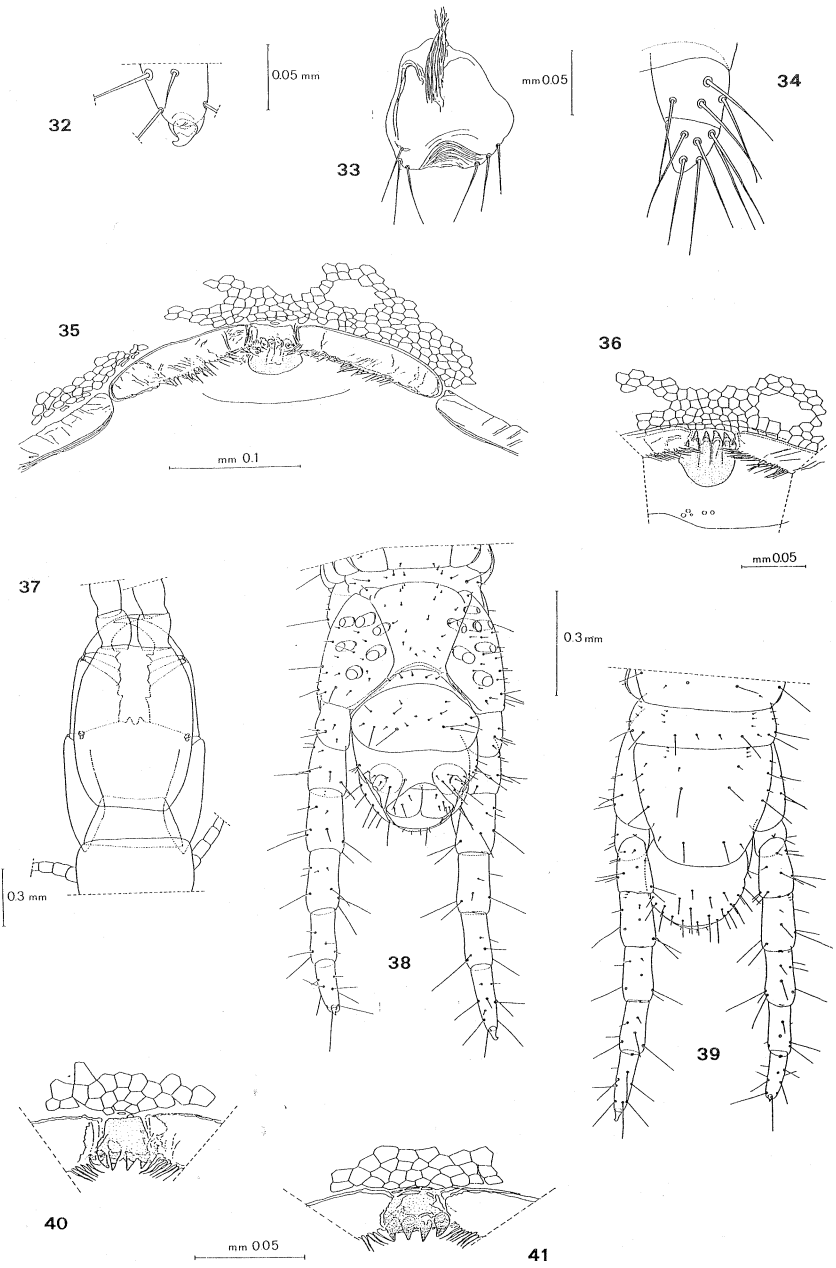
All features similar to the male except for the last leg-bearing segment and terminal segments.

Last leg-bearing segment: form and chaetotaxy of sternum and tergum as in Figures 38 and 39. Coxopleura with few large and small setae. Podomeres of terminal legs not inflated, dorsally and ventrally provided with few large and small setae (Figs. 38, 39).

Terminal segments: intermediate sternum with posterior margin concave, I genital sternum with posterior margin medially slightly concave, slightly convex laterally (Fig. 38). Gonopods uniarticulate (Fig. 38).

Variability — There may be between 4 and 6 teeth on the midpiece of the labrum.

Remarks — In describing his *Scolioplanes magellanicus*, ATTEMS (1897) stated that ventral pores are present only on the posterior margin of the anterior sterna; on the contrary, careful examination of his syntypes reveals that those specimens, like our new ones,



Figs. 32-34 — *Schendyloides alacer* (Pocock). Falkland Islands, male. — 32, distal end of the last podomere of the last r. leg. v.; 33, penis, dorsal; 34, l. gonopod, v.
Figs. 35-41 — *Schendyloides alacer* (Pocock). Argentina: Tierra del Fuego: Usuhaia. Female (specimen B): 35, labrum. Female (specimen C): 36, central region of labrum. Female (specimen D): 37, cephalic shield, basis of antennae, forcipular segment with poison claw, tergum and legs I, d.; 38, last leg-bearing segment and terminal segments, v.; 39, the same, d. Male (specimen F): 40, central region of labrum. Male (specimen H): 41, central region of labrum.

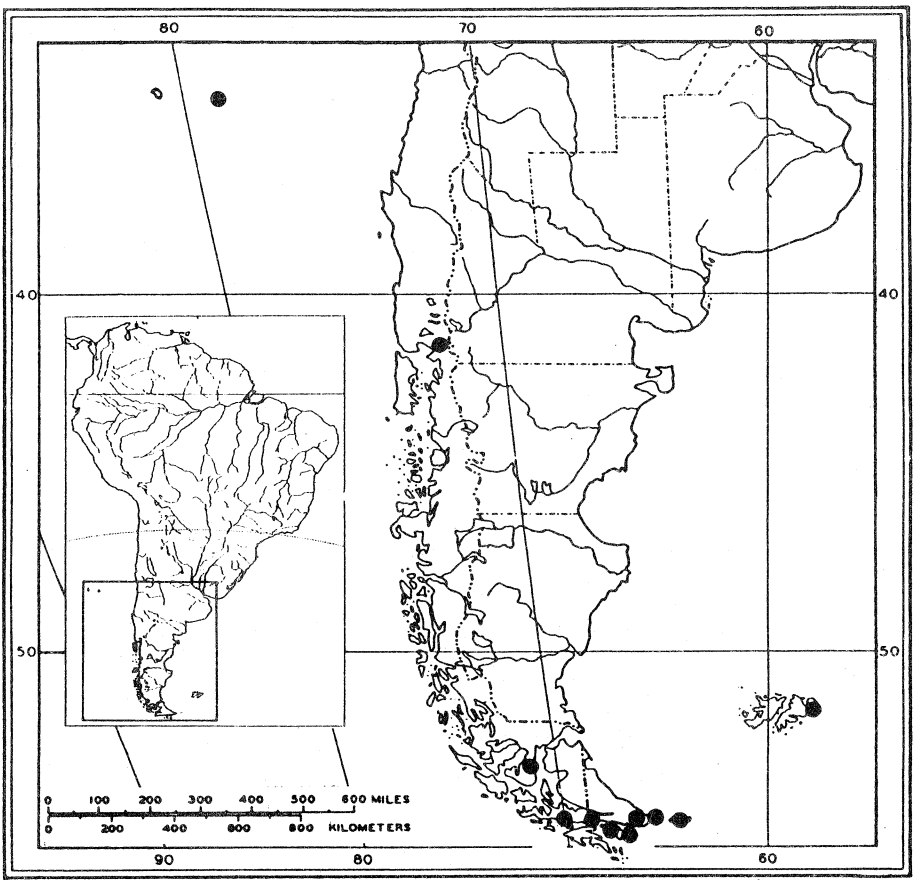


Fig. 42. Distribution map of *Schendyloides alacer* (Pocock).

do have ventral pores both in anterior and posterior sterna and also the anterior margin.

As for number of legs, Attems' 44 syntypes all possess 33 pairs, like our specimens. In his *Tierreich* monograph (1929), the same author gives both figures of 33 and 35 for this species, but it is possible that specimens with 35 pairs of legs belong to a different species, as already suggested by SILVESTRI (1905:765). Further mistakes about this species are to be found in CHAMBERLIN's (1962:11) account, where this author wrote of «first mixillae without external lappets» (contrary to the evidence, cfr. our Fig. 17) and mentions his locality of Navarino Island as new, whereas this island in Beagle Canal already appears in ATTEMS's list for *Sc. magellanicus*.

Distribution (Fig. 42) - FALKLAND ISLANDS: Port Stanley: CHILE: Juan Fernandez Island: Marino Alejandro Selkirk (Robinson Crusoe) Island; Prov. Llanquihue: Parque Nacional Vicente Perez Rosales; Prov. Magallanes: Punta Arenas, Navarino Island, Picton Island, Lennox Island; ARGENTINA: Prov. de Tierra del Fuego: Usuhaia, Lapataia, Bahía Buen Suceso, Isla de los Estados. The species is probably widespread in other parts of Southern Argentina and Chile, within tha Antarctic zoogeographic region (cfr. CABRERA & WILLINK, 1973). Species common to Juan Fernandez and the Falklands do not seem to be much numerous, but we can

at least cite a plant with similar distribution, i.e. *Oreobolus obtusangulus* of the Cyperaceae (Good, 1974:248).

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ABSTRACT

Schendyloides alacer (Pocock, 1891) is redescribed and illustrated after specimens collected in the Falklands and in Tierra del Fuego.

RIASSUNTO

Nuovo reperto di Schendyloides alacer *(Pocock, 1891) dalle Isole Falkland e ridescrizione della specie* (Chilopoda Geophilomorpha).

Schendyloides alacer (Pocock, 1891) viene ridescritto sulla base di materiale proveniente dalle Isole Falkland e dalla Terra del Fuoco.

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