

TWO NEW SPECIES OF *ONUPHIS* (ONUPHIDAE: POLYCHAETA) FROM URUGUAY

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Abstract.—Two new species of *Onuphis* (*Onuphis*) from Uruguay, *O. (O.) difficilis* and *O. (O.) orensanz* are described, based on material identified as *Onuphis setosa* Kinberg by Orensanz (1974).

Kinberg (1865) described several species of *Onuphis* from the southern Atlantic Ocean collected during the EUGENIE expedition. The material of most of these species is in Riksmuseet, Stockholm, Sweden, with the exception of the material of *Onuphis setosa* which has been lost (Roy Olerød, in litt.).

The specimens of *O. setosa* must have been lost before 1930 since Augener (1931:297) remarked that they were absent when he reviewed Kinberg's collection of onuphids from the La Plata region. Orensanz (1974:88) applied the name to a species found in the type-area. Some discrepancies between Kinberg's (1865, 1910) description and illustrations and those made by Orensanz suggested that it was necessary to review Orensanz' material. Three samples were made available by the Director, M.N.H.N., Montevideo, Uruguay. As suspected, these specimens cannot belong to *Onuphis setosa* Kinberg and are described below as two new species.

The generic definitions and terminology are as in Fauchald (1980).

Onuphis (Onuphis) difficilis, new species

Fig. 1, Table 1

Onuphis setosa.—Orensanz, 1974:89, in part (not Kinberg, 1865:560).

Material.—Atlantic Ocean off Uruguay. 34°51'S, 54°04.5'W, 39 m depth, 14 April 1965, coll. A. Knipovich, st. 263 (holotype, M.N.H.N., Montevideo, I 1382, 1 paratype, M.N.H.N., 1 paratype, USNM 69917).

Description.—The holotype is an incomplete specimen with 50 setigers that is 16.5 mm long and 1.7 mm wide with parapodia. It is pale buff-colored and lacks distinct color patterns. Eyes are absent.

The prostomium (Fig. 1a) is a rounded lobe; the frontal palps are short and triangular and the short peristomial cirri barely reach the middle of the prostomium. The outer lateral occipital antennae reach setiger 1, the inner lateral antennae reach setiger 7, and the median antenna reaches setiger 4. The occipital ceratophores have up to 7 distinct rings on the lower half. Each ring is very narrow and the rings are crowded near the base of the antennae making them difficult to observe.

Branchiae are first present from setiger 6; all branchiae are branched; the first branchia has 3 filaments; where best developed, posterior to setiger 21, each branchia has 6 filaments. In one of the paratypes (USNM 69917), which consists of 200 setigers, the last 50 setigers have reduced branchiae with only 3 or 4 filaments.



Fig. 1. *Onuphis (Onuphis) difficilis* holotype, N.M.H.N., Montevideo, I 1382: a, Anterior end, dorsal view; b, Pectinate seta, median parapodium; c, Third parapodium, anterior view; d, Large hook, third parapodium; e, Pseudocompound hook, third parapodium; f, Eighth parapodium, anterior view; g, Anterior end, lateral view.

Ventral cirri (Fig. 1g) are cirriform in the first 8 setigers and postsetal lobes are distinctly digitiform in the first 17 setigers in the holotype and in the first 11 or 23 setigers in the 2 paratypes. The first parapodia are no longer than those in the second or third setiger (Fig. 1c). In each of these parapodia the acicular lobe is distally rounded, the presetal lobe follows the outline of the acicular lobe closely except on the lower side where it is cut away from the base of the setae. A distinct contraction fold is present across the middle of the frontal face. The ventral cirrus and postsetal lobes are both triangular and of the same size. The dorsal cirrus is more distinctly digitiform and twice as long as the ventral cirrus. The ventral cirri and postsetal lobes become increasingly tapered posteriorly (Fig.

If). The dorsal cirrus remains of about the same length in all setigers but becomes increasingly slender in posterior setigers.

Limbate and pectinate setae, pseudocompound, large and subacicular hooks are present. Limbate setae are present in all setigers but are especially numerous in the anterior third of the body. In the first 4 or 5 setigers they are short, slender, and limited to the superior part of the fascicles. Each of the median and posterior parapodia has 2 pectinate setae; each (Fig. 1b) is distinctly oblique distally and has about 14 or 15 coarse teeth. The distal edges of the pectinate setae are curved. Tridentate pseudocompound hooks (Fig. 1e) are present in the first 5 setigers; the distal tooth is extremely long and slender and projects well beyond the edge of the hood and the median and proximal teeth are short and slender. Large, tridentate hooks (Fig. 1d) are present in setigers 3–8; each has a long, relatively slender distal tooth, the median tooth is blunt and conical, and the proximal tooth is slender and narrow. Bidentate subacicular hooks are first present in setiger 18 in the holotype and in setigers 15 and 18 in the 2 paratypes.

The maxillary formula (observed in the paratype in USNM 69917) is 1+1, 9+9, 11+0, 9+8, and 1+1.

Fragments of a ragged tube were present in the vial with the 3 specimens. The inner lining of the tube appears to be soft, but with considerable tensile strength; it is covered externally with loose debris in no recognizable pattern.

Kinberg's illustrations and descriptions of *Onuphis setosa* show a species with cirriform ventral cirri on less than 5 setigers, branchiae starting between setigers 10 and 20. The pseudocompound hooks are distally shown as bidentate and with short, blunt hoods. Orensanz' material from Uruguay have ventral cirri in at least 6 setigers, branchiae are present from setiger 6 and the pseudocompound hooks are tridentate. The Uruguayan specimens resemble *O. setosa* basically in having the median occipital antenna clearly shorter than the inner lateral ones, but this is certainly not a unique character for this species.

Onuphis difficilis and *O. orensauzi* (see below) both resemble the same complex of species, including *O. fragilis* Kinberg (1865:561; see also Fauchald 1980:808), *O. pulchra* Fauchald (1980:814), *O. simoni* Santos, Day and Rice (1981:663), *O. vermillionensis* Fauchald (1968:41) and *O. virgata* Fauchald (1980:819) in that all these species have exclusively tridentate pseudocompound hooks, branched branchiae starting at setigers 5–10 and ventral cirri present in at least 5 setigers. A comparison of these species is given in Table 1.

Etymology.—The problems in differentiating species in this group prompted the name.

Distribution.—*Onuphis difficilis* is known from one locality in shelf depths off Uruguay in the southwestern Atlantic Ocean.

Onuphis (Onuphis) orensauzi, new species

Fig. 2, Tables 1 and 2

Onuphis setosa.—Orensanz, 1974:94, in part (not Kinberg, 1865:560).

Material.—Atlantic Ocean off Uruguay, 34°51'S, 52°35'W, 83 m, 12 April 1965, coll. A. Knipovich, st. 250 (holotype, M.N.H.N., Montevideo, 1 1380, 129 paratypes, M.N.H.N., USNM 69918). Atlantic Ocean off Uruguay, 35°20.8'S,

Table 1.—Comparison of selected species of *Onuphis* (*Onuphis*). The columns are: 1, Number of rings in the occipital ceratophores; 2, Number of segments with cirriform ventral cirri; 3, Number of segments with pseudocompound hooks; 4, Last segment with large hooks; 5, First branchia present; 6, Maximal number of branchial filaments; 7, Number of teeth in the pectinate setae; 8, First segment with subacicular hooks.

Name	1	2	3	4	5	6	7	8
<i>difficilis</i>	7-8	7-9	5	8	6	6	15	18
<i>fragilis</i>	0	7	7	12	6	2	?	25
<i>orensanzi</i>	3-4	5	4	6	6	3	10	13
<i>pulchra</i>	4-5	9	6	15-19	6	4	50	16-20
<i>simoni</i>	3	6-8	5	16	6-9	7-8	16-19	17
<i>vermillionensis</i>	4-5	9	8	10	7	4	14	12
<i>virgata</i>	4-5	11-13	7	21-22	5-7	5	8	22-23

52°50.4'W, 130 m, 14 April 1965, coll. A. Knipovich, st. 260 (15 paratypes, M.N.H.N., Montevideo, I 1383).

Description.—The holotype is a complete specimen with 153 setigers that is 33.15 mm long and 2.50 mm wide with parapodia. The body is cylindrical and pale pink in color; distinct color patterns are absent. The prostomium is a short rounded lobe with the occipital antennae attached medially. The frontal palps are short and slender. At the posterior margin of the prostomium is a small, distinct tubercle. The outer lateral occipital antennae reach setiger 2, the inner lateral antennae reach setiger 5 and the median antenna reaches setiger 3. The inner lateral ceratophores have up to 4 basal rings. The peristomial antennae are short and slender and do not reach beyond the base of the occipital antennae.

Branchiae are present from setiger 6 to setiger 92 in the holotype. The first 15 and the last 30 pairs of branchiae are single filaments; all other branchiae have either 2 or 3 filaments where best developed.

The first parapodia are all similar in size; the acicular lobes are rounded and the presetal lobe follows the outline of the acicular lobe closely. The postsetal lobes and the ventral cirri are of the same length in the first parapodium (distorted in Fig. 2a), in the second and third parapodia the ventral cirri are distinctly longer than the postsetal lobe. The ventral cirri are digitiform; the postsetal lobes are triangular. The dorsal cirri are longer than the ventral cirri in all setigers; each is digitiform but becomes slender and thread-like in posterior setigers. Ventral cirri are cirriform in the first 5 setigers in all specimens. Postsetal lobes are digitiform in the first 10 setigers.

Limbate and pectinate setae, pseudocompound, large and subacicular hooks are present. Limbate setae are present in all setigers, but are especially common in the first third of the body. Distally oblique pectinate setae with about 10 teeth each are present in median and posterior setigers. Usually 2 pectinate setae are present in a parapodium. Tridentate pseudocompound hooks with short blunt hoods are present in the first 3-5 setigers; the distal tooth is only slightly longer than the median and proximal teeth and does not project beyond the hood. Large hooks are present from setiger 3 to about 6; each large hook is tridentate with 2 large, strongly curved teeth basally and a short, slender tooth distally. The distal

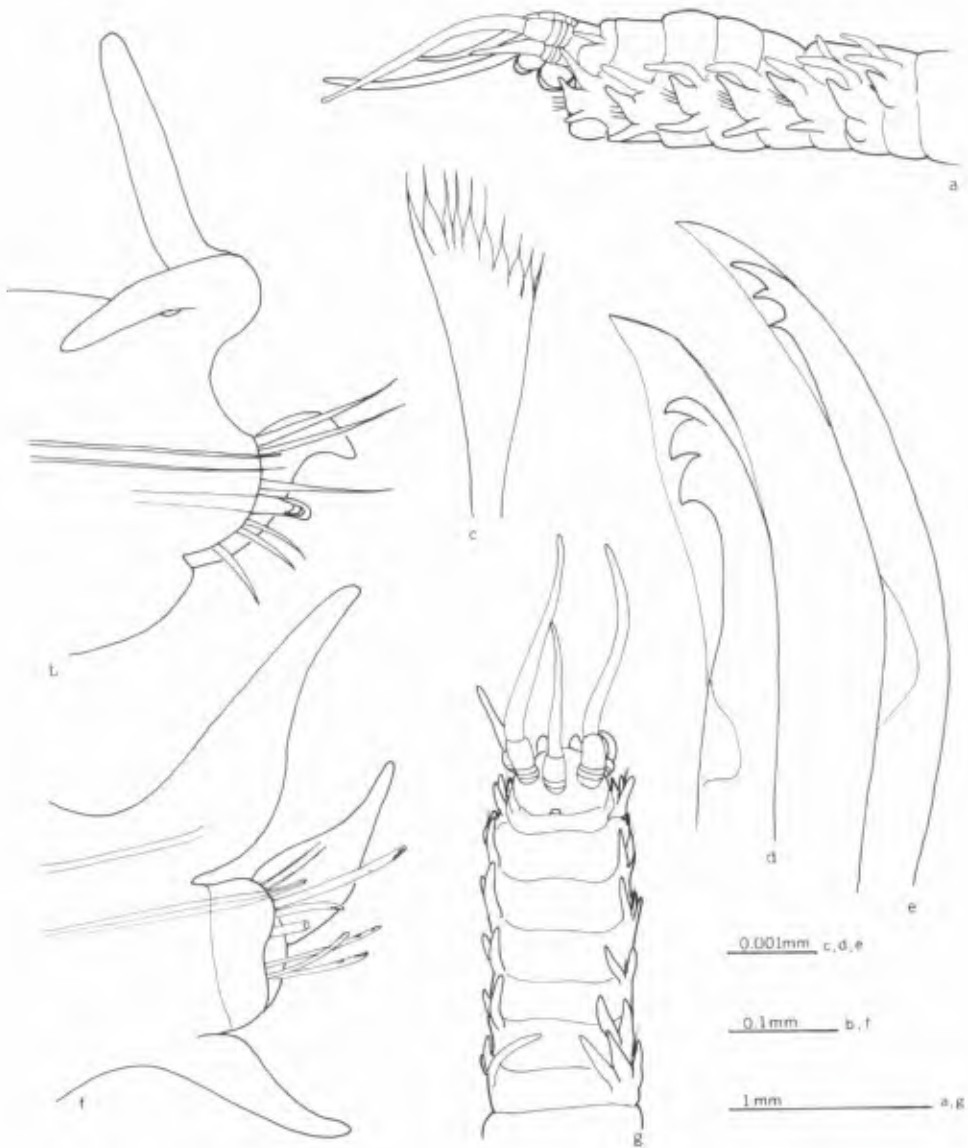


Fig. 2. *Onuphis (Onuphis) orensanzi*: a, c–e and g, holotype M.N.H.N., Montevideo, 1 1380, b and f, paratype USNM 69918. a. Anterior end, lateral view; b, Seventh parapodium, anterior view; c, Pectinate seta, median parapodium; d, Large hook, third parapodium; e, Pseudocompound hook, third parapodium; f, Third parapodium, anterior view; g, Anterior end, dorsal view.

tooth is often broken, but the base of the tooth can always be recognized. Bidentate subacicular hooks are present from setiger 12 or 13.

The maxillary formula (investigated in 3 paratypes from USNM 69918) is 1+1, 5+5, 7+0, 4+6–7, and 1+1.

Table 2.—Survey statistics for *Onuphis* (*Onuphis*) *orensanzi*.

	Range	Mean	s.d.	v.	N
Occipital antennae					
Outer lateral reach number	1-2	1.03	0.16	0.03	39
Inner lateral reach number	3-9	5.23	1.03	1.06	35
Median reaches number	2-4	3.19	0.66	0.44	37
Number of rings	3-4	3.78	0.42	0.18	40
Branchiae					
From setiger number	6		invariant		
To setiger number	76-92	87.00	5.60	31.33	7
Number of filaments	1-3	2.28	0.60	0.36	40
Cirriiform ventral cirri to setiger number	5		invariant		
Digitiform postsetal lobes to setiger number	8-10	9.83	0.50	0.25	40
Pseudocompound hooks to setiger number	3-5	3.90	0.44	0.19	40
Number teeth in pseudocompound hooks	3		invariant		
Subacicular hooks first present from number	10-14	12.53	0.82	0.67	40
Volume through setiger 10	0.03-2.68	1.05	0.54	0.29	40
Mean length per setiger ($\times 100$): 18.10					
Mean length per setiger ($\times 100$), st. 250: 16.12					
Mean length per setiger ($\times 100$), st. 260: 22.74					

Tubes are slender, with a thin inner lining and thin cover of sediment particles.

All specimens from station 260 were investigated in detail, as were 25 of the 130 specimens from station 250. The remaining 105 specimens were only cursorily examined, but do not appear to differ in the distribution of ventral cirri, branchiae, postsetal lobes, or in the number of rings on the ceratophores.

The differentiation of *O. orensanzi* and related species is indicated in Table 1.

Etymology.—The species is named in honor of the Argentinian polychaetologist José María Orensanz whose papers on the southwest Atlantic fauna have added considerably to our knowledge of the polychaetes.

Distribution.—*O. orensanzi* is known from two localities off the coast of Uruguay and may be widespread in the southwest Atlantic Ocean.

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