

Haplosyllis basticola Sardá, Avila & Paul, 2002 revisited from a collection obtained in Lizard Island (Australia).

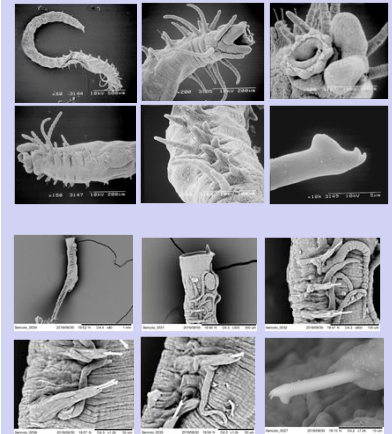
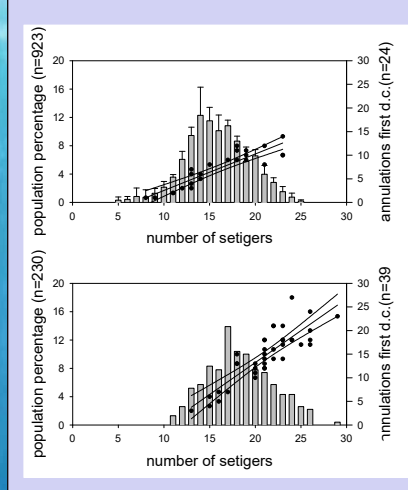
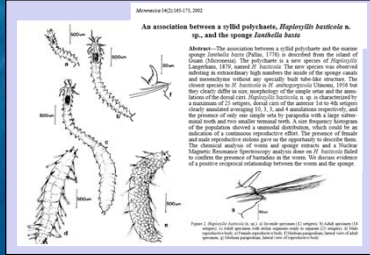
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Haplosyllis basticola was observed (1998) and described (2002) from an association between the polychaete species and the sponge *lanthella basta* (Pallas, 1776) at Sponge Mound (Apra Harbor, 25-35m) off the island of Guam (Micronesia)⁽¹⁾. Since then, several specimens found in other sites around Australia and Papua New Guinea have been included in this species and additional material added. This new material introduced several changes in their original description as size (largest animals), the number of annulations in dorsal cirri and the number of chaetae per parapodia⁽²⁾. During the course of a visit to Lizard Island (Great Barrier Reef, Australia) following the IPC11 in Sydney, we had the opportunity to collect specimens of another population of the species. Hundreds of individuals were obtained from a fragment of, again, *lanthella basta* collected at 20 m depth off the Marine Research Station of the Island.

Haplosyllis basticola (Guam, 1998), original description of the species



Haplosyllis basticola (Lizard Island, 2013)



A detailed study of the Lizard island population allowed us to compare this population with the previous one found in Guam and with other species descriptions. The Guam population was in reproduction by schizogamy and its average size was lower (maximum size 25 setigers) than the one in Lizard Island where large individuals 26-27 setigers were found (one individual attaining 29 setigers) and no reproductive behaviour observed. A morphometrical analysis of dorsal cirri articles was carried out within this later population to see changes associated to growth patterns.



n° setigers present	setiger number												...	1,0	
	1s	2s	3s	4s	5s	6s	7s	8s	9s	10s	11s	12s			
<16	4,3	3,0	1,0	1,0	1,0	1,0	1,0	1,0	1,0	1,0	1,0	1,0	1,0	...	1,0
16-17	6,3	1,3	2,0	1,3	1,0	1,0	1,0	1,0	1,0	1,0	1,0	1,0	1,0	...	1,0
18-19	13,7	2,7	3,3	5,7	1,0	1,0	1,0	1,0	1,0	1,0	1,0	1,0	1,0	...	1,0
20-21	13,7	3,3	3,3	5,0	1,3	1,0	1,0	1,0	1,0	1,0	1,0	1,0	1,0	...	1,0
22-23	17,8	5,0	6,0	10,0	1,7	1,2	1,0	1,0	1,0	1,0	1,0	1,0	1,0	...	1,0
24-25	20,0	7,5	8,5	13,0	3,5	1,5	1,0	1,0	1,0	1,0	1,0	1,0	1,0	...	1,0
26-27	19,8	6,5	8,5	13,3	4,3	3,0	1,5	1,0	1,0	1,0	1,0	1,0	1,0	...	1,0
28-29	23,0	7,0	12,0	18,0	8,0	4,0	3,0	2,0	5,0	2,0	3,0	1,0	...	1,0	

Average number of articles observed in dorsal cirri vs worm setiger sizes (Lizard Island population). Red numbers indicate moniliform structure while yellow numbers indicate digitiform structure. Green line shows proventricle region extending from setiger 5 to 9.

From both populations;

- ✓ *Haplosyllis basticola* belongs to the group of *Haplosyllis* of small size (4.5 mm maximum length). Up to 25 setigers in the Guam population⁽¹⁾, up to 29 in Lizard Island. Reproductive bodies were found at 24 setigers in the Guam population.
- ✓ Pharynx extending throughout 4 setigers. Crow of 9-12 soft papillae and a large tooth. Dark proventricle extending 4-5 setigers with 25-35 muscle cell rows (average of 30 cell rows in the Lizard Island population).
- ✓ Dorsal cirri morphology changing with size (see above table). Ventral cirri small and digitiform in any case.
 - Most of the individuals with less of 16 setigers presenting dorsal cirri non articulated except the first one.
 - Specimens over 16 setigers with dorsal cirri moniliform (clearly annulated) until proventricle region, then the rest of dorsal cirri digitiform and non articulated.
 - Specimens larger than 26 setigers with dorsal cirri of moniliform structure that can be seen throughout the proventricle region; then with digitiform structure sometimes with few articles. After setiger 12 all dorsal cirri digitiform and non articulated.
- ✓ Chaetae all bidentate. From both population, one simple chaeta per parapodia from the first to the last setiger (except for reproductive bodies in the Guam population, only occasionally two chaetae were seen).

Both populations exhibit no articulations in dorsal cirri behind the 5-6th setiger (Guam) or 12th setiger (Lizard Island) while adult specimens possess only one chaeta per parapodia. This is not coincident with the description of the South Wales population and its redescription⁽²⁾ where all dorsal cirri are annulated and up until 3 chaetae can be seen by parapodia. Further research on *Haplosyllis* species should be done in order to solve what in could be another potential species-complex or different species.