

## **Acoela (Acoelomorpha) from the northern beaches of the state of São Paulo, Brazil, and a systematic revision of the family Otocelididae**

MATTHEW D. HOOGE<sup>1</sup> & CARLOS E. F. ROCHA<sup>2</sup>

<sup>1</sup>Department of Biological Sciences, The University of Maine, 5751 Murray Hall, Orono, ME, 04469-5751, USA.

<sup>2</sup>Departamento de Zoologia, Instituto de Biociências, Universidade de São Paulo, Rua do Matão trav. 14 no. 101, 05508-900 São Paulo, Brazil

### **Table of contents**

|  |    |
|--|----|
| Abstract .....   | 3  |
| Introduction .....   | 3  |
| Materials and methods .....                                      | 3  |
| Family Actinoposthiidae Hooge, 2001 .....                        | 4  |
| Genus <i>Philactinoposthia</i> Dörjes, 1968 .....                | 4  |
| <i>Philactinoposthia coneyi</i> sp. nov. ....                    | 4  |
| <i>Philactinoposthia stylifera brasiliensis</i> subsp. nov. .... | 9  |
| Family Convolutidae Graff, 1905 .....                            | 12 |
| Genus <i>Amphiscolops</i> Graff, 1905 .....                      | 12 |
| <i>Amphiscolops evelinae</i> Marcus, 1947 .....                  | 12 |
| Genus <i>Convoluta</i> Ørsted, 1843 .....                        | 12 |
| <i>Convoluta henseni</i> Bohmig, 1895 .....                      | 12 |
| Genus <i>Heterochaerus</i> Haswell, 1905.....                    | 14 |
| <i>Heterochaerus sargassi</i> (Hyman, 1939) .....                | 14 |
| Family Haploposthiidae Westblad, 1948 .....                      | 15 |
| Genus <i>Haplogonaria</i> Dörjes, 1968 .....                     | 15 |
| <i>Haplogonaria sophiae</i> sp. nov. ....                        | 15 |
| Genus <i>Kuma</i> Marcus, 1950 .....                             | 17 |
| <i>Kuma albiventer</i> (Marcus, 1954) .....                      | 17 |
| Genus <i>Kuma</i> Marcus, 1950 .....                             | 19 |
| <i>Kuma asilhas</i> sp. nov. ....                                | 19 |
| Family Isodiametridae Hooge and Tyler, 2005 .....                | 22 |
| Genus <i>Archaphanostoma</i> Dörjes, 1968 .....                  | 22 |
| <i>Archaphanostoma marcusii</i> sp. nov. ....                    | 22 |

|   |    |
|---|----|
| Genus <i>Avagina</i> Leiper, 1902 .....   | 23 |
| <i>Avagina marci</i> Dörjes and Karling, 1975 .....   | 23 |
| Genus <i>Isodiametra</i> Hooge and Tyler, 2005 .....  | 26 |
| <i>Isodiametra divae</i> (Marcus, 1950) .....   | 26 |
| <i>Isodiametra vexillaria</i> (Marcus, 1948) .....  | 27 |
| <i>Isodiametra westbladi</i> (Marcus, 1949) .....   | 29 |
| Genus <i>Pseudaphanostoma</i> Westblad, 1946 .....  | 30 |
| <i>Pseudaphanostoma divae</i> Marcus, 1952 .....  | 30 |
| <i>Pseudaphanostoma herringi</i> sp. nov. ....  | 30 |
| Unidentified species .....  | 35 |
| Genus 1 species 1 .....   | 35 |
| Family Mecynostomidae Dörjes, 1968 .....  | 35 |
| Genus <i>Eumecynostomum</i> Faubel and Regier, 1983 .....   | 35 |
| <i>Eumecynostomum evelinae</i> (Marcus, 1948) .....   | 35 |
| Family Otocelididae Westblad, 1948 .....  | 37 |
| Genus <i>Haplocelis</i> Dörjes, 1968 .....  | 37 |
| <i>Haplocelis dichona</i> (Marcus, 1954) .....  | 37 |
| Genus <i>Otocelis</i> Diesing, 1862 .....   | 37 |
| <i>Otocelis erinae</i> sp. nov. ....  | 37 |
| Family Otocelididae Westblad, 1948 .....  | 41 |
| Genus <i>Philocelis</i> Dörjes, 1968 .....  | 41 |
| <i>Philocelis robrochai</i> sp. nov. ....   | 41 |
| Family Paratomellidae Dörjes, 1966 .....  | 45 |
| Genus <i>Paratomella</i> Dörjes, 1966 .....   | 45 |
| <i>Paratomella rubra</i> Rieger and Ott, 1971 .....   | 45 |
| Reassignment of the genera <i>Haplocelis</i> Dörjes, 1968 and <i>Otocelis</i> Diesing, 1862 (Otocelididae) to the Family Isodiametridae ..... | 47 |
| Emended diagnosis of the genus <i>Haplocelis</i> Dörjes, 1968 .....   | 47 |
| Emended diagnosis of the genus <i>Otocelis</i> Diesing, 1862 .....  | 48 |
| Acknowledgments .....   | 48 |
| References .....  | 48 |