

PROCEEDINGS
OF THE
BIOLOGICAL SOCIETY OF WASHINGTON

A NEW SPECIES OF *DENTIGRYPUS* WILSON
(COPEPODA, CALIGOIDA) FROM MADAGASCAR

BY ROGER CRESSEY

Smithsonian Institution, Washington, D.C.

A new species of *Dentigryps* parasitic on the body surface of the jack, *Caranx hippos* (Linn.) was collected by the author at Nosy Bé, Madagascar during the International Indian Ocean Expedition.

I would like to acknowledge the National Science Foundation-U.S. Program in Biology for supporting the field portion of this work.

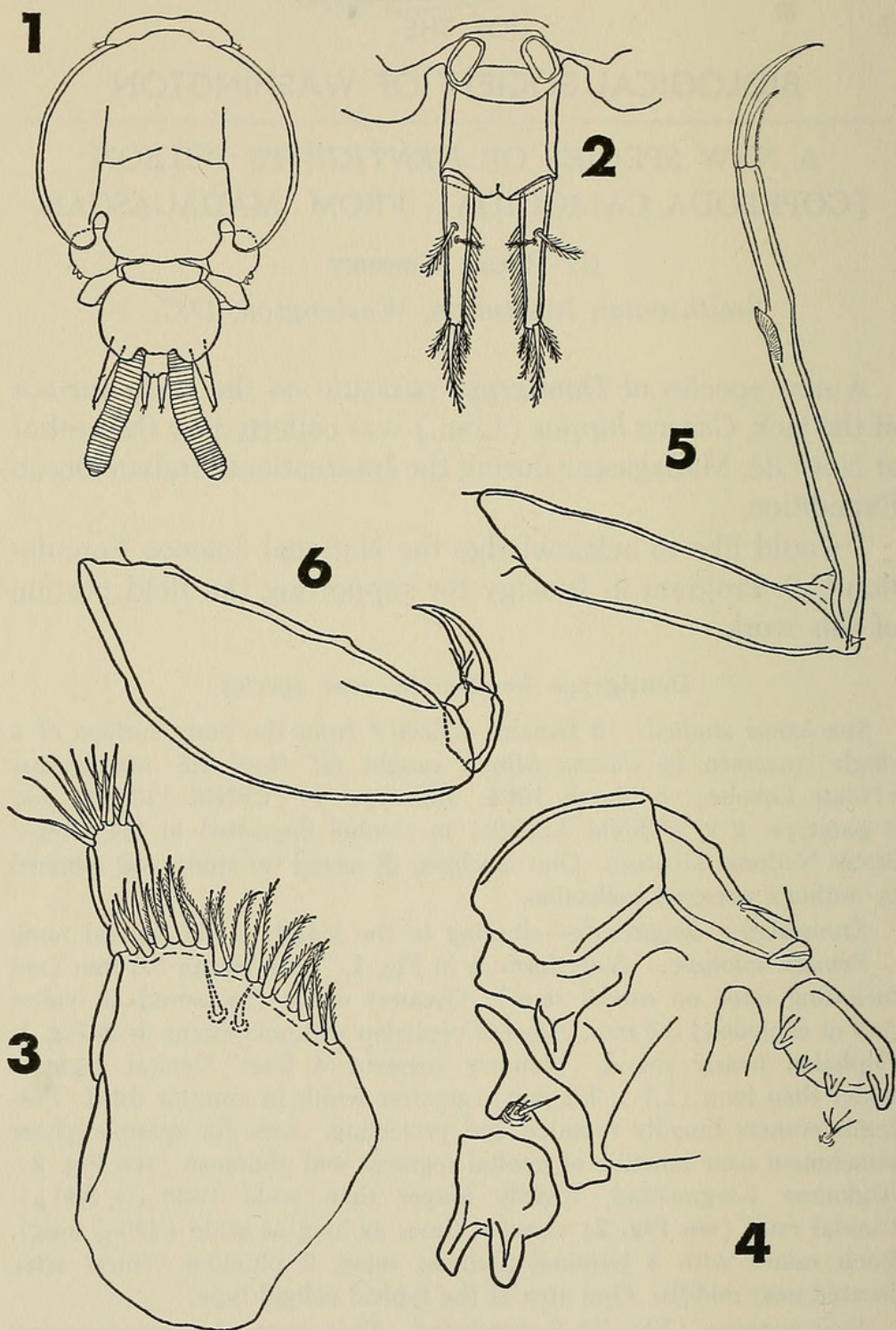
***Dentigryps longicauda*, new species**

Specimens studied: 6 females collected from the body surface of a single specimen of *Caranx hippos* caught off Nosy Bé, Madagascar (Pointe Lokobe), 8 March 1964. Holotype ♀ (USNM 113048) and 4 paratype ♀♀ (USNM 113049) in alcohol deposited in the United States National Museum. One specimen dissected for study and retained in author's personal collection.

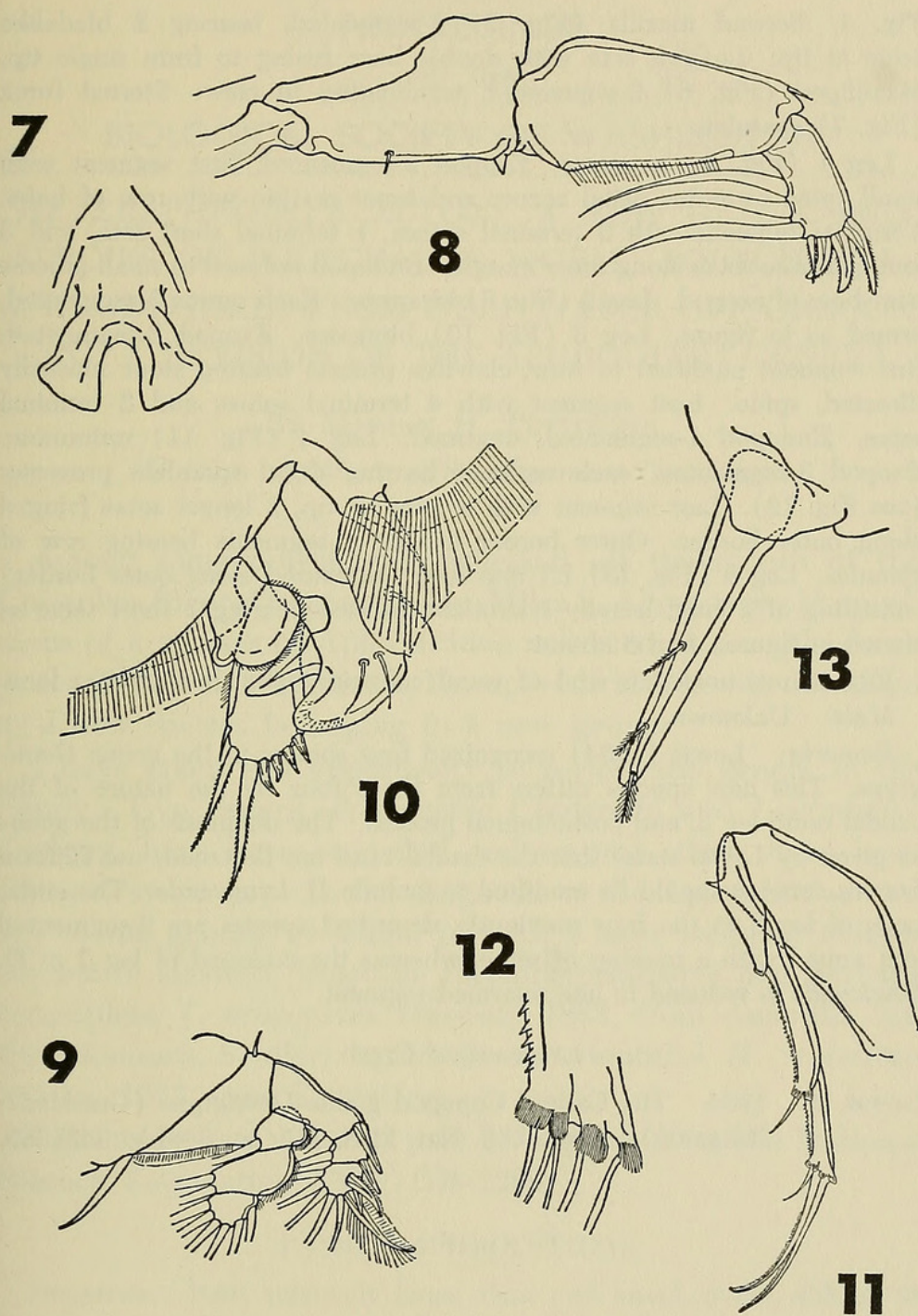
Etymology: *longicauda*—alluding to the length of the caudal rami.

Female holotype: Body form as in Fig. 1. Total length 5.6 mm (not including setae on caudal rami). Greatest width (measured at widest part of cephalon) 3.5 mm. Edge of cephalon with membrane as in Fig. 1. Cephalon nearly round. Thoracic segment 4 free. Genital segment wider than long (1.7×1.2 mm), greatest width in anterior third. Posterior corners broadly rounded and projecting. Area for spermatophore attachment near junction of genital segment and abdomen (see Fig. 2). Abdomen 1-segmented, slightly longer than wide ($420 \mu \times 360 \mu$). Caudal rami (see Fig. 2) about 4 times as long as wide (456μ long). Each ramus with 4 terminal plumose setae, 2 plumose ventral setae located near middle. Oral area of the typical caligid type.

First antenna (Fig. 3) 2-segmented. First segment bearing several plumose setae on distal border. Last segment with group of 11 naked setae at tip. Second antenna (Fig. 4) 3-segmented. Penultimate segment in form of sclerotized claw. Sclerotized cuticular process directed posteriorly near base of second antenna. Post-antennal process with prominent lateral process and 3 smaller sclerotized processes along



FIGS. 1-6. *Dentigryps longicauda* n. sp., female: 1, female, dorsal; 2, abdomen and caudal rami; 3, first antenna; 4, area of second antenna and first maxilla; 5, second maxilla; 6, maxilliped.



FIGS. 7-13. *Dentigryps longicauda* n. sp., female: 7, sternal furca; 8, leg 1; 9, leg 2; 10, leg 3; 11, leg 4; 12, distal end of last segment of leg 4; 13, leg 5.

posterior border (see Fig. 4). Mandible and mouth tube as in other species of genus. Mandible with 12 teeth at tip. First maxilla reduced to group of 3 setae anterior to postoral process (see Fig. 4). Postoral process with 2 broad sclerotized processes directed posteriorly as shown in

Fig. 4. Second maxilla (Fig. 5) 2-segmented, bearing 2 bladelike setae at tip. Longest seta with double base fusing to form single tip. Maxilliped (Fig. 6) 2-segmented, terminating in claw. Sternal furca (Fig. 7) spatulate.

Leg 1 (Fig. 8) biramose. Exopod 2-segmented, first segment with small spine on outer distal corner and inner margin with row of hairs. Terminal segment with 3 terminal spines, 1 terminal short seta, and 3 long plumose setae along inner margin. Endopod reduced to small process near base of exopod. Leg 2 (Fig. 9) biramose. Each ramus 3-segmented, armed as in figure. Leg 3 (Fig. 10) biramose. Exopod 2-segmented, first segment modified to form clawlike process bearing stout inwardly directed, spine. Last segment with 4 terminal spines and 3 terminal setae. Endopod 1-segmented, unarmed. Leg 4 (Fig. 11) uniramose. Exopod 3-segmented, each segment bearing distal spatulate processes (see Fig. 12). Last segment with 3 setae at tip, 2 longer setae fringed along outer border. Outer border of last 2 segments bearing row of spinules. Leg 5 (Fig. 13) 1.1 mm long (measured along outer border) consisting of a long, heavily sclerotized process bearing 3 short setae as shown in figure. Leg 6 absent.

Egg strings uniseriate and of usual caligoid type, about 2 mm long.

Male: Unknown.

Remarks: Lewis (1964) recognized four species in the genus *Dentigryps*. This new species differs from those four by the nature of the caudal rami, leg 3, and postantennal process. The diagnosis of the genus as given by Lewis states that the caudal rami are flattened, not filiform but his concept should be modified to include *D. longicauda*. The endopods of leg 3 in the four previously described species are 2-segmented and armed with a number of setae, whereas the endopod of leg 3 in *D. longicauda* is reduced to one unarmed segment.

LITERATURE CITED

- LEWIS, A. 1964. The Caligid Copepod genus *Dentigryps* (Crustacea: Caligoida). Proc. U.S. Nat. Mus. 115(no. 3487): 347-380.



Cressey, Roger F. 1966. "A new species of *Dentigryps* Wilson (Copepoda, Caligoida) from Madagascar." *Proceedings of the Biological Society of Washington* 79, 91–94.

View This Item Online: <https://www.biodiversitylibrary.org/item/107518>

Permalink: <https://www.biodiversitylibrary.org/partpdf/44275>

Holding Institution

Smithsonian Libraries and Archives

Sponsored by

Biodiversity Heritage Library

Copyright & Reuse

Copyright Status: In copyright. Digitized with the permission of the rights holder.

Rights Holder: Biological Society of Washington

License: <http://creativecommons.org/licenses/by-nc-sa/3.0/>

Rights: <https://biodiversitylibrary.org/permissions>

This document was created from content at the **Biodiversity Heritage Library**, the world's largest open access digital library for biodiversity literature and archives. Visit BHL at <https://www.biodiversitylibrary.org>.