

HaloptilusGiesbrecht, 1898. H. longicornis^①

p. 176

Syn. Hemicalanus Claus, 1863 (not Dana)Haloptilus Giesbrecht, 1898, p. 117.Haloptilus G. O. Sars, 1902, p. 120.Hemicalanus Giesbrecht, 1892, p. 65, 384ἅλς = salt and πτεῖλον = feather.Haloptilus Pesta, 1921, p. 534.

Body flattened and highly transparent.
Thorax 4-jointed in ♀, 5-jointed in ♂.
1^o antennae slender, left one geniculate in ♂.
Endopod of 2^o antennae greatly produced, ~~the~~
exopod small - Terminal part of maxilla 5-
jointed - Legs rather weak - Exopod of
5^o legs in ♂ imperfectly prehensile.

Haloptilus Giesbrecht, 1898

2

—, Gardner & Szabo, 1982, p27, 387.

—, NISHIDA, 1984: 37

— Tanaka, 1964d: 39

— MAUCHLINE 1988: 702, FIG. 2b, pore signature

— PARK 1988: 1-25, ANTARCTIC SPECIES; REDEFINED GENUS; KEY TO ANTARCTIC SPECIES.

Augaptilidae → Heteroparabrotidae → Calanoida

Haloptilus aculeatus (Brady). ♀.

Hemicalanus a — Brady, 1883, p. 45: pl. 46.

Haloptilus a — Giesbrecht, 1898, p. 120

Hemicalanus — Giesbrecht, 1892, p. 384.

HALOPTILUS ACULEATUS, PARK 1988: 3

Habitat. Tropical Pacific

Heterorhabdidae - Calanoida.

Haloptilus acutifrons (Giesbrecht), ♀.

Hemicalanus — Giesbrecht, 1892, p. 384: pl. 3, §, 11:
pl. 27, §, 12; pl. 42, §, 12, 20.

Hemicalanus spinifrons G. O. Sars, 1900, p. 95: pl. 28

Haloptilus acutifrons G. O. Sars, 1902, p. 122: pl. 83, §, 2.

Habitat. Norway Coast; Mediterranean:
Pacific.

-- -- Grainger, 1965, pp. 543-564.

-- -- Park, 1968, pp. 527-572.; 1970, p. 478

- — Giesbrecht & Schmeil, 1898, p. 118.
— — T. Scott, 1912, p. 536.
— — Farran, 1929, p. 267.
— — Sars, 1925, p. 250: pl. 74, f. 1-11.
— — Wilson 1942, p. 188
— —, Mori, 1937, p. 77, JAPAN.
— —, Brodsky, 1950, p. 364, F. 255.
— —, Sewell, 1947, p. 190, Arabian Sea, Gulf of Oman.
— —, Jespersen, 1934, p. 110, W. GREENLAND WATERS. - 1940,
p. 56-57. S. of Iceland.
— —, Chiba, Tsuruta, & Maeda, 1955. Bikini.
— —, Johnson, 1963. pp. 92, 93, 97
— —, Grice, 1962. p. 223, pl. 25, fig. 1-8

- -- ; Vervoort, 1957, p. 135-136.
- --, Hure & Scotto di Carlo, 1968, p. 59.
- , Corral, 1970, pp. 193-4
- , Paiva, 1971, pp. 26-7, fig. 6a-e (syn. Hemicalanus acutifrons)
- , Stormer, 1929, p. 48
- , Arcos, 1975, p. 23
- , Roe, 1972a, pp. 298-
- , Roe, 1972d, pp. 1030, 1033.
- , Furuhashi, 1966: 313
- , JOHNSON, 1956a: 11; TAB. 4

- , Vives, 1972, p. 221 & 222.
- , Furuhashi, 1961: 108
- , Bjornberg, 1963: 9, 54, 104, 104 (table 7), Table 10
- , DEEVEY, 1971: TAB. 3
- , BINET & DESSIER, 1971: 436-437
- , OWRE & FOYO, 1972: 493; TAB. 3
- , OWRE & FOYO, 1964b: 366
- , SCOTTO DI CARLO ET AL., 1975: TAB. 1
- , CALEF & GRICE (UNPUBL.) IN KETCHUM & RUTHER
1966 (UNPUBL.): APPENDIX
- , CHENG et al. 1965: 2.
- , Chiba & Hirakawa 1972: Tab. 2.

Haloptilus acutifrons (Giesbrecht, 1892)

card 3

--, Shih & Laubitz, 1978, p. 49

-- SANDER & MOORE 1978: 233.

-- YOUNG-BLUTH 1979: 27, CARIBBEAN

-- GRICE & HART 1962a: 293, w. NORTH ATLANTIC

-- GRICE & HART 1962b: TABLE 3

-- Tanaka, 1964d: 42-

-- Tanaka, 1965a: 29, fig. 10a

-- Bjornberg, 1981: 654, fig. 219 #9

-- MADHU PRATAP & HARIDAS, 1986: 108, INDIAN OCEAN

- Deevay & Brooks, 1977: 265

- Hure, 1955: 32

- Hure, 1961: 26

- Vives, 1978: 266, 283.

- KIORTSIS ET AL. 1969: 37, AEGEAN

- PARK 1988: 2; SYNONYM H. SPINIFRONS (SARS)

Haloptilus acutifrons (Giesbercht 1892)

card 4

-- Soldevilla, et al. 1988: 60 Canary Islands

-- CUMMINGS 1982: 33-, GULF OF MEXICO

-- SUÁREZ, E. + GASCA 1989a: 198-, YUCATAN CHANNEL

-- SUÁREZ M., E. + GASCA 1989c: 94-, COSTA RICA DOME

-- SUÁREZ, E. ET AL. 1990: 126-, W. GULF OF MEXICO

-- REID 1990g: 187

-- SUÁREZ M., E. 1992: 144; W. GULF OF MEXICO

-- STEPHEN Y SARALADEVI 1973: 172-179, INDIAN OCEAN; FIG. 1, 2a, 1ST DESCRIPTION OF ♂

Haloptilus acutifrons (Giesbrecht, 1892)

card 5

-- Suarez & Gasca 1991: 596-, Gulf of Mexico

-- RAZOUKS 1994: 172; 10

-- CAMPOS HERNÁNDEZ + SUÁREZ MORALES 1995: 96, 100,
FIGS. 4A, B, GULF OF MEXICO, CARIBBEAN

-- ROSE 1927: 146, ALGERIA

-- ROSE 1934: 54-81, "

Haloptilus angusticeps G.O. Sars. ♀

— — Sars, 1907, p. 20

— — Sars, 1925, p. 246: pl. 72, f. 1-12

— — Wilson 1942, p. 188

-- Roe, 1975, p. 347.

Habitat. Temperate Atlantic; Mediterranean.

-- --, Hure & Scotto di Carlo, 1968, p. 60.

--, Roe, 1972a, pp. 298-

--, Roe, 1972d, p. 1034.

--, DEE VEY, 1971: TAB. 3

--, Vives, 1972, pp. 221-2.

--, Bjornberg, 1963: 104 (table 7)

--, VERVOORT, 1965: 125-126

--, SCOTO DI CARLO, ET AL., 1975: TAB. 1

-- Deevy & Brooks, 1977: 265

-- KIORTSIS ET AL. 1969: 37-, AEGEAN

-- PARK 1988: 2

Haloptilus angusticeps Sars 1907

card 2

-- Soldevilla, et al. 1988: 60 Canary Islands

Haloptilus austini Grice

CARD 1

1959---pp. 193-195, figs. 1-18.

-- --, Grice, 1962. p. 223

--, CALEF + GRICE (UNPUBL.) IN KETCHUM + RYHER,
1966 (UNPUBL.): APPENDIX

-- GRICE + HART 1962a: 293, W. NORTH ATLANTIC

-- GRICE + HART 1962b: TABLE 3

— Bjornberg, 1981: 653, fig. 219 #2

-- MADHUPRATAP + HARIDAS, 1986: 108 - INDIAN OCEAN

-- PARK 1988: 3; SYNONYM H. LONGICEPS TANAKA

Haloptilus austini Grice, 1959

card 2

-- Ali-Khan & Ali-Khan 1984: 309

-- CAMPOS HERNÁNDEZ + SUÁREZ MORALES 1995:100

Haloptilus bulliceps Farran, ♀.

— — Farran, 1926, p. 286: pl. 9, f. 15-16: pl. 10, f. 1-3

-- MADHU PRATAP + HARIDAS, 1986: 108, INDIAN Oc.

-- PARK 1988: 3

Habitat. Bay of Biscay. 100 fath.

Haloptilus caribbeanensis Park, 1970

-- ~~p~~; Park, 1970, pp. 478, 537-541, figs. 356-371.

-- PARK 1988: 2

-- CAMPOS HERNÁNDEZ + SUÁREZ MORALES 1995: 100

Heterorhabdidae - Carabidae.
Haloptilus chierchiae (Giesbrecht). ♀.

Hemicalanus c — Giesbrecht, 1889. c. p. 813.

— — Giesbrecht, 1892, p. 384: pl. 27, f. 16, 17.

Haloptilus c — Giesbrecht, 1898, p. 118.

— — Wolfenden, 1911, p. 324.

— — Sodevilla, et al 1988: 60 Canary Islands

Habitat. Tropical Atlantic & Pacific.

- - Jars, 1925, p. 244: pl. 70, f. 1-13.
- - Sewell 1932, p. 328, Indian O.
- - " 1947, p. 190, F. 49, Arabian Sea area.
- , Wolfenden, 1906, p. 30
- , Roe, 1972a, pp. 298-
- , Roe, 1972d, p. 1034.
- Tanaka & Omori, 1971, pp 249, fig 2(a-g)
- - MADHU PRATAP + HARIDAS 1986: 108, INDIAN OC.
- - MAUCHLINE 1988: 702
- - PARK 1988: 3

Heterorhabdidae - Caranoidae.
Haloptilus gentilis (Giesbrecht) ♂.

Hemicalanus — Giesbrecht, 1892, p. 384; pl. 42, f. 5
p. 27, f. 2, 36

Haloptilus — Giesbrecht, 1898, p. 119.

-- --, Grice, 1962. p. 223,.

-- --, Owre, 1962

-- -- Park, 1968, pp. 527-572.

Habitat. Naples.

-- --, Hure & Scotto di Carlo, 1968, p. 60.

-- --, 1961

- , Roe, 1972a, pp. 306-
- , Bjornberg, 1963: 9, 54
- , VERVOORT, 1965: 129-130 SYN. HEMICALANUS FERTILIS
- , CALEF & GRICE (UNPUBL.) IN KETCHUM & RUTHER
1966 (UNPUBL.): APPENDIX
- , Marques, 1953: 119
- MADHU PRATAP & HARIDAS, 1986: 108, INDIAN OC.
- PARK 1988: 3

Haloptilus fertilis (Giesbercht 1892)

card 2

-- Soldevilla et al. 1988: 60 Canary Islands

-- SUAREZ, F. + GASCA 1989a: 198, YUCATAN CHANNEL

-- SUÁREZ, E. ET AL. 1990: 126-, W. GULF OF MEXICO

-- ALI-KHAN & ALI-KHAN 1984: 309

-- SUÁREZ M., E. 1992: 144, W. GULF OF MEXICO

-- SUAREZ + GASCA 1991: 596, GULF OF MEXICO

-- CAMPOS HERNÁNDEZ + SUÁREZ MORALES 1995: 96, 100,
FIGS. 5 F, G, GULF OF MEXICO + CARIBBEAN

Haloptilus fons Farran, ♀.

①

— — Farran, 1909 (1906), p. 69; pl. 7, f. 11-15

— — Sars, 1925, p. 245; pl. 71, f. 1-14.

--, WHEELER, 1970: TAB. 4

— Tanaka & Omori, 1974: 264-266, fig. 33a-o

Habitat. Atlantic.

— Bjornberg, 1981: 653, fig. 219#3

-- MADHUPRATAP & HARIDAS, 1986: 108, INDIAN OCEAN

— Deevy & Brooks, 1977: 265

-- PARK 1988: 2-5, FIGS. 1, 2, ANTARCTIC / SUBANTARCTIC

Haloptilus fons Farran, 1909

card 2

-- Razouls 1994: 10

-- CAMPOS HERNÁNDEZ & SUÁREZ MORALES 1995:100

Haloptilus furcatus G.O. Sars, ♀.

— — Sars, 1920, p. 12

— — Sars, 1925, p. 252: pl. 75, f. 1-12

--, GRICE, 1969: 454; FIG. 58-67

-- PARK 1988: 2

Habitat. Temperate Atlantic.

~~— Vervoort, 1972: 94 Antarctic~~

Haloptilus glacialis

--, Vives, 1972, p. 222.

Haloptilus longicauda

--, Vives, 1972, p. 222.

Haloptilus longiceps Tanaka 1964

--, Roe, 1972a, pp. 298-

--, Roe, 1972d, p. 1034.

— Tanaka, 1964d: 44 — 45, fig. 194 a-j-
OFF JAPAN.

-- PARK 1988: 3, SYNONYM OF H. AUSTINI GRICE.

--- Soldevilla, et al. 1988: 60 CANARY ISLANDS

-- REID 1990g: 188

HALOPTILUS LONGICIRRUS

BRODSKY⁽¹⁸⁾
1950

-- Roe, 1975, p. 348

--- 1950, p. 363, fig. 254.

-- --, Grice, 1963. p. 498, fig. 1, C-G

-- --; Park, 1970, pp. 478, 535-537, figs. 330-342

--- Bradford, 1970 p. 347

--, Roe, 1972a, pp. 298-

--, Roe, 1972d, p. 1034.

-- Minoda, 1972, p. 327-330.

--, VERVOORT, 1965: 124-125

--, NOTODA & MINODA, 1974: 215,

- Devey & Brooks, 1977: 265

- MAUCHLINE 1988: 702

- PARK 1988: 2, 3, 21-22, FIG. 13, ANTARCTIC/
SUBANTARCTIC; SYNONYM H. SETULIGER TANAKA

Haloptilus longicirrus Brodsky 1950

card 2

-- Soldevilla, et al. 1988: 60 Canary Island

-- CUMMINGS 1982: 33; GULF OF MEXICO

-- HERRING 1988: 184-

-- RAZOUK 1994: 195; PL. 96, ANTARCTIC; 10

-- CAMPOS HERNÁNDEZ + SUÁREZ MORALES 1995: 100

Haloptilus longicornis (Claus), ♀.

Hemicalanus — Claus, 1863, p. 179: pl. 29, fig. 1.

— — Carus, 1885, p. 335.

— — Brady, 1883, p. 44: pl. 9, figs. 1-5.

— — T. Scott, 1894, p. 32: A. Scott, 1909, p. 140

Habitat. Mediterranean: Gulf of
Guinea: Malaysia:

— — Wolfenden, 1906: 1010, ~~pl. 22, fig. 45~~

- Haloptilus Steyer, 1910, p. 1029(25).
Hemical. G.O. Sars, 1902, p. 121: pl. 82: pl. 83, f. 1.
Hemical. Thompson, 1888, c. p. 139 | pl. 1, f. 4: pl. 2, f. 13
Hemical. Giesbrecht, 1889, c. p. 813; 1892, p. 384
Haloptilus — Giesbrecht, 1898, p. 118.
— — Pesta, 1921, p. 534: text fig. D 48.
— — Wolfenden, 1911, p. 323
— — Farran, 1929, p. 269: Sars, 1925, p. 240.
— — Wilson 1942, p. 188
— —, Mori, 1937, P. 75, JAPAN
— —, Brodsky, 1950, P. 362
— —, Chiba, Tsuruta, + Maeda FIG. 253
1955. Bikini.

Haloptilus longicornis

(2)

-- --, Honjo et al, 1957. pp. 120-128

-- --, Grice, 1962. p. 223,

-- --, Heinrich, 1961. p. 87 (vertical distribution)

-- --, Owre, 1962

-- --, Deerey, 1964, p. 590

-- -- Park, 1968, pp. 527-572.; 1970, pp. 478, 535, figs
325-329.

-- --, Saraswathy, 1967, p. 80

-- --, Shmeleva, 1963, p. 141

-- --, Heinrich, 1960, p. 3

~~-----~~ Ramirez, 1969: 79 - 81, fig. 123

-- Bjornberg, 1968: 88 - 92, pl. 20, fig. 1-3 (see back)

-- --, Hure & Scotto di Carlo, 1968, p. 60.

--, Chiba, 1956, p. 11

--, Corral, 1970, pp. 191-2, pl. 50

--, Heinrich, 1960, p. 1, 7, 8, 10, 12

--, Berdugo & Kimor, 1968, p. 447

--, Roehr & Moore, 1965, p. 566

--, Ehrhardt, 1967, p. 741

--, Wolfenden, 1906, p. 30

--, Krylov, 1967?, p. 248

--, Arcos, 1975, p. 23

--, Bowman, 1971, p. 6 -

--, WHEELER, 1970: 6: TAB. 4

Haloptilus longicornis

xxx card 3

- , Roe, 1972a, pp. 298-
- , Roe, 1972d, pp. 1030, 1033-4, 1040.
- , Vives, 1972, pp. 221-2.
- , Tanaka : Omori, 1971, pp 249, 253.
- , Furuhashi, 1966: 310, 313
- , Furuhashi, 1961 : 74, 107
- , Bjornberg, 1963: 9, 54, 55, 104 (3 Tables), table 10, 121
- , VERVOORT, 1965: 123-125 SYN. HEMICALANUS LONGICORNIS
- , STEPANJANTS, 1977: 78, 85, 96; TAB. 1, 3
- , DEEVEY, 1971: 226, 229; TAB. 3

- , BINET & DESSIER, 1971: 436, 455
- , BINET, ET AL., 1972: 133
- , OWRE & FOYO, 1964b: 360, 366
- , OWRE & FOYO, 1972: 493; TAB. 3
- , SCOTTO DI CARLO, ET AL., 1975: TAB. 1
- , CALEF & GRICE (UNPUBL.) IN: KETCHUM & RUTHER
1966 (UNPUBL.): TAB. 2; APPENDIX
- , Cervigon & Marciano 1965: Fig. 15.

Haloptilus longicornis (Claus, 1863)

card 4

--, Shmeleva & Zaika, 1973, p. 874

--, Chen et al, 1983: 352, 365.

--, Cannicci, 1959: passim

- Chen, Zhang, Chen, 19--: 82

- Marikova & Campos, 1967: 67

-- TRANTER 1977: 593-625.

-- SANDER & MOORE 1978: 233

-- MICHEL & Foyo 1976: 90, 131, 134, 139-140, 158 (FIG. 16 B),
184-190 (TAB. 38)

- Moryakova & Campos, 1966: 131, passim Cuba

Haloptilus longicornis (Claus)

card 5

- Youngbluth 1979: 22, Caribbean
- GRICE & HART 1962a: 296, w. NORTH ATLANTIC
- GRICE & HART 1962b: TABLE 3
- Tanaka, 1964d: 39 - 40, fig. 192a - g
- Tanaka, 1965a: 29, fig. 11a - c
- Binet & Dessier, 1968: 8, OFF MADAGASCAR
- Bjornberg, 1981: 653, fig. 219 #1
- MADHUPRATAP & HARIDAS, 1986: 108, 109, 112, 116 -
INDIAN OCEAN
- Deevay & Brooks, 1977: 265

- DeDecker, 1984: ~~265~~ 317

- Hure, 1955: 32

- Hure, 1961: 25

-- AMBLER + MILLER 1987: 561-577, N. PACIFIC

- Vives, 1978: 266, 282

-- MAUCHLINE 1988: 702

-- KIORTSIS ET AL. 1969: 37-, AEGEAN

- STEPHEN 1984: 166-, ARABIAN SEA

-- SCHULZ 1986b: 463-464, SARGASSO SEA

-- PARK 1988: 2, 3, 18-21, FIGS. 11, 12, ANTARCTIC /

SUBANTARCTIC

Haloptilus longicornis (Claus 1863)

card 6

-- Soldevilla, et al. 1988: 60 Canary Islands

-- CUMMINGS 1982: 31-, GULF OF MEXICO

-- BÖTTGER-SCHNACK 1988: 317

-- ROE 1974: 103-, N. ATLANTIC

-- VALENTIN 1989: 30-, CABO FRIO, BRAZIL

-- COPLEY ET AL. 1989: 12-, NW ATLANTIC

-- BOTTGER 1985: 157-, RED SEA

-- LAKKIS 1984: 289-, E. MEDITERRANEAN

-- VUČETIĆ 1984: 420-, ADRIATIC

HALOPTILUS LONGICORNIS (CLAUS)

8

HALOPTILUS -, SHMEL'VA & KOVALEV 1974: 66, FIG. 11a

- ROSE 1934: 54-81, ALGERIA

- ALVAREZ-SILVA 1996: 19, TAB. 2, VERACRUZ, MEXICO

Haloptilus longicornis (Claus 1863)

card 7

-- Suarez, E. et al. 1990:124-, w. Gulf of Mexico

-- REID 1990g:188

-- ALI-KHAN & ALI-KHAN 1984:308-309,
FIGS. 30-34, OFF PAKISTAN-INDIAN OCEAN

-- SUÁREZ M., E. 1992:144-, w. GULF OF MEXICO

-- SUAREZ & GASCA 1991:596-, GULF OF MEXICO

-- YAMASHITA & MOREIRA 1981:41

-- CAMPOS HERNÁNDEZ & SUÁREZ MORALES 1995: 96, 100, FIGS.
4F-H, GULF OF MEXICO & CARIBBEAN

^{see}
Haloptilus
(Haloptilus) ^{- misprint} longicornis

--, Shmeleva & Kovalev, 19~~68~~⁷⁴, p. 66, fig. 11a

Haloptilus longimanus Wolfenden - see Pseudhaloptilus

Heterorhabdidae - Calanoida

Haloptilus major Wolfenden, ♀

— — Wolfenden, 1911, p. 324.

-- PARK 1988:2

Habitat. Tropical Atlantic.

Haloptilus megalurus

--, Vives, 1972, pp. 222.

Haloptilus mucronatus (Claus), ♂♀.

Hemicalanus — Claus, 1863, p. 179: pt. 29, f. 2

— — Claus, 1885, p. 334.

— — T. Scott, 1894, p. 33.

Haloptilus — Giesbrecht, 1898, p. 119

— —, Ouvre, 1962

Habitat: Mediterranean: Gulf of
Guinea.

(see back)

- Hemicalanus — Giesbrecht, 1892, p. 384: pl. 3. f. 10:
pl. 27, f. 11, 13, 19: pl. 42, f. 4, 6, 13, 14.
- — Farran, 1929, p. 268.
- — Sars, 1925, p. 249: pl. 73. f. 11-15.
- — Matoda and Anraku 1955 p. 212 Idzu Is.
- —, Mori, 1937, p. 76, JAPAN.
- —, Sewell, 1947, p. 193, S. Arabian Sea.
- —, Chiba, Tsuruta, + Maeda, 1955. Bikini.
- --, Hure & Scotto di Carlo, 1968, p. 59.
- , Furuhashi, 1966: 310
- , Furuhashi, 1961: 108
- , WHEELER, 1970: TAB. 4
- , DEE VEY, 1971: TAB. 3

HALOPTILUS MICRONATUS

CARD 2

--, BINET & DESSIER, 1971: 437

--, OWRE & FOYO, 1972: TAB. 3

--, SCOTTO DI CARLO, ET AL., 1975: TAB. 1

--, CALEF & GRICE (UNPUBL.) IN KETCHUM & RYMER
1966 (UNPUBL.): APPENDIX

- Bjornberg, 1981: 654, fig. 219 #8

-- MADHU PRATAP & HARIDAS, 1986: 108, INDIAN OCEAN

- Devey & Brooks, 1977: 265

- Hure, 1955: 33

Haloptilus mucronatus (Claus 1863)

card 3

-- Park 1988: 2

-- CUMMINGS 1982:34-, GULF OF MEXICO

-- SUÁREZ, F. ET AL. 1990:126-, W. GULF OF MEXICO

-- SUÁREZ M., F. 1992: 144-, W. GULF OF MEXICO

-- SUÁREZ + GASCA 1991: 596-, GULF OF MEXICO

-- CAMPOS HERNÁNDEZ + SUÁREZ MORALES 1995:96, 100,
FIGS. 4I-K, GULF OF MEXICO, CARIBBEAN

Haloptilus ocellatus Wolfenden, ♀.

- — Wolfenden, 1905, p. 14; ^{pl. 5} 1908, p. 42: pl. 3. f. 1-2.
— — Wolfenden, 1908, p. 42: pl. 3. fig. 1-2.
— — Brady, 1918, p. 28: pl. 6. figs. 9-10.
— —, VERVOORT, 1951, P. 143.

Habitat. Antarctic Ocean.

- Bjornberg, 1981: 654, fig. 219 #6

- -- Wolfenden, 1911, p. 324.
-- -- Harvan, 1929, p. 268.
-- --, Tanaka, 1960. p. 54, pl. 24, fig. 1-5
-- --; Vervoort, 1957, p. 138.
-- --, Bradford, 1971, p. 26, fig. 104-19
-- --, Seno, Komaki & Takeda, 1963, tab. 2
-- -- MONTU' & CORDEIRO 1986: 88-, WEDDELL SEA,
DRAKE PASSAGE
-- -- PARK 1988: 2, 3, 4-9, FIGS. 3, 4, ARCTIC/SUBANTARCTIC

Haloptilus ocellatus Wolfenden, 1908

- Nakamura et al. 1982: 28-30 fig 2 tab 1
Antartic (Indian O. sector)

-- MARIN 1987: 109-, SCOTIA SEA

-- MARIN 1986: 62-, SCOTIA SEA

-- STEPHEN & SARALA DEVI 1973: 178

-- RAZOUKS 1994: 10

Haloptilus orientatis (Brady), ♀.
Microkabalidae - Calamoida.

Hemicalanus — Brady, 1883, p. 45: pl. 9 & 10.

— — Giesbrecht, 1892, p. 384, p. 384

Haloptilus — Giesbrecht, 1898, p. 120

-- PARK 1988: 3

Habitat. Between Arros & Banda Islands.
Banda Sea.

Haloptilus ornatus (Giesbrecht). ♂. ♀. (1)

Hemicalanus — Giesbrecht, 1892, p. 384: pl. 1-3. 27. 142

Haloptilus — Giesbrecht, 1898, p. 120: text-f. 120

— — A. Scott, 1909, p. 141.

— — Wolfenden, 1911, p. 323

Habitat. Naples : Malaysia : Atlantic

--, CURE & FOYO, 1972: TAB. 3

--, SCOTTO DI CARLO, ET AL., 1975: TAB. 1

-- -- Sars, 1925, p. 247: pl. 73, f. 1-5.

-- --, Chiba, 1956, p. 52, fig. 44 A-E.

-- --, Chiba, Tsuruta, + Maeda, 1955. Bikini.

-- --, Chiba, 1956, p. 52, fig. 44

-- --, CALEF + GRICE (UNPUBL.) IN KETCHUM + RUTHER
1966 (UNPUBL.): APPENDIX

Haloptilus ornatus (Giesbrecht) ♀♂

(2)

Hemicalanus ornatus Giesbrecht 1892, p. 184 pl. 1-3, 27,
42

Haloptilus ornatus Giesbrecht, 1898, p. 120

H ornatus Sars 1905, p. 4

_____ I. C. Thompson, 1903, p. 28

_____ van Breemen 1908, p. 130, fig. 148

_____ Sars 1925, p. 247, Pl. 73, figs. 1-5

_____ Wilson 1942, p. 189

_____ Sewell 1932, p. 328, Indian O.

MORI, 1937, P. 75, JAPAN.

--, SEWELL, 1947, P. 194, F. 50, S. arubai Sea area.

-- --, Grice, 1962. p. 223, pl. 25, fig. 12-16

-- --, Owre, 1962

-- --; Park, 1970, p. 478.

-- --, Hure & Scotto di Carlo, 1968, p. 59.

--, Wolfenden, 1906, p. 30

--, Morris, 1970, p. 2301.

--, Roe, 1972a, pp. 298-

--, Roe, 1972d, pp. ¹⁰³⁰ 1030, 1032-3.

--, Tanaka & Omori, 1971, pp. 249, 253.

--, Furuhashi, 1966: 307, 310

--, Fun --, VERVOORT, 1965: 126-127 540. HEMICALANUS ORNATUS

Haloptilus ornatus (Giesbrecht)

card 3

-- Sander & Moore 1978: 233

-- YOUNGBLUTH 1979: 22, CARIBBEAN

-- GRICE & HART 1962b: TABLE 3, W. NORTH ATLANTIC

— Tanaka, 1964d: 43

-- MADHU PRATAP & HARIDAS, 1986: 108, 109, 112, INDIAN Oc

— Devey & Brooks, 1977: 265

-- KIORTSIS ET AL. 1969: 37-, AEGEAN

Haloptilus ornatus

2

34

--, Furuhashi, 1961: 74, 108

--, Bjornberg, 1963: 104 (table 7), table 10

--, STEPANANTS, 1977: 78, 82, 85; TAB. 1, 3

--, DEEVEY, 1971: TAB. 3

--, Chiba & Hirakawa 1972: Tab. 2.

— Chen, Zhang, Chen, 19__ : 65

— Bjornberg, 1981: 653, fig. 219 #5

— Hure, 1955: 33

— Hure, 1961: 25

-- MAUCLINE 1988: 702

Haloptilus ornatus (Giesbrecht 1892)

card 5

-- Park 1988: 2, 3, 14-18, figs. 9, 10, Antarctic/
Subantarctic

-- Soldevilla, et al. 1988: 60 Canary Islands

-- CUMMINGS 1982: 33, GULF OF MEXICO

-- SUAREZ M., E. & GASCA 1989c: 94, COSTA RICA DOME

-- COPLEY ET AL. 1989: 12, NW ATLANTIC

-- SUÁREZ, E. ET AL. 1990: 126, W. GULF OF MEXICO

-- REID 1990g: 188

-- ALI-KHAN & ALI-KHAN 1984: 309

Haloptilus ornatus (Giesbrecht, 1892)

card 6

-- Suarez M., E. 1992: 144-, w. Gulf of Mexico

-- SUAREZ + GASCA 1991: 596; GULF OF MEXICO

-- CAMAOS H. + SUÁREZ M. 1995: 96, 100, FIG. 5A, GULF OF
MEXICO + CARIBBEAN

-- ROSE 1934: 59-81, ALGERIA

Heterorhabdidae - Calanoidae

Haloptilus oxycephalus (Giesbrecht). ♀, ♂.

Hemicalanus — Giesbrecht, 1889, c, p. 813

— — Giesbrecht, 1892, p. 384: pl. 42, f. 16, 23.

Haloptilus — Giesbrecht, 1898, p. 119.

— — Wolfenden, 1911, p. 324

— — Owre, 1962

Habitat. Tropical Pacific: Indian Ocean

— Tanaka, 1964d: 43

— Bjornberg, 1981: 654, fig. 219# 10

- — Sars, 1925, p. 252: pl. 74, figs. 12-16.
— — Farran, 1929, p. 268.
— — Wilson 1942, p. 189
— —, Matoda and Anraku 1955 p. 212 Idzu Is.
— —, Anraku, 1954, pp. 123-136, Aleutian Is.,
— —, MORI, 1937, P. 77, JAPAN.
— —, SEWELL, 1947, P. 194. Arabian Sea area.
— —, VERVOORT, 1951, P. 142, ANTARTIC WATERS.
— —, Chiba, Isuruta, + Maeda, 1955. Bikini.
— —, Honjo et al, 1957. pp. 120-128
— —, Brodsky, 1962. pp. 132, 134, fig. 34
— —, VERVOORT, 1965: 129 SYN: HEMICALANUS OXYCEPHALUS
— —, DEEVEY, 1971: TAB. 3

Haloptilus oxycephalus (Giesbrecht, 1889)

2

- Corral Estrada, 1972, p. 5.
- --; Vervoort, 1957, p. 136-138, figs. 128-130.
- --, Heinrich, 1960, p. 4
- --, Bradford, 1970, p. 347
- --, Hure & Scotto di Carlo, 1968, p. 59.
- , Bradford, 1972, p. 46, fig. 13.1-13.2
- , Bradford, 1971, p. 27, fig. 120-4
- , Paiva, 1971, p. 26-7
- , Arcos, 1975, p. 23
- , Bowman, 1971, p. 6 -

--, Furuhashi, 1966: 303, 305, 313

--, Furuhashi, 1961: 107

--, BINET & DESSIER, 1971: 436, - 437, 455

--, SCOTTO DI CARLO, ET AL., 1975: TAB.1

--, CALEF & GRICE (UNPUBL.) IN KETCHUM & RYMER
1966 (UNPUBL.): APPENDIX

Haloptilus oxycephalus (GIESBRECHT) card 3

- , Grindley & Lane, 1979, p. 112-117, tbl. 2, fig. 2, 3
- , Gardner & Szabo, 1982, p. 27, 388-389, fig. 24.2.1,
Syn.: Hemicalanus oxycephalus
- Ramirez, 1969: 81-82, fig. 141, 146
- , MOTODA & MINODA, 1974: 233
- Corral Estrada, 1972 b: 5
- MADHUPRATAP & HARIDAS, 1986: 108, 116 - INDIAN OCEAN
- Deewey & Brooks, 1977: 265
- DeDecker, 1984: 317

HALOPTILUS OXYCEPHALUS (GIESBRECHT)

CARD 4

- ZMIJEWSKA 1983: 33-45, PRYDZ BAY, ANTARCTICA
- PARK 1988: 2, 3, 9-14, FIGS. 5, 6, ~~ARCTIC~~ ANTARCTIC
- Vervoort, 1972: 94 Antarctica
- Nakamura et al 1982: 28-30 fig 2 tab 1 Antarctic
(Indian O. sector)
- Soldevilla, et al. 1988: 60 Canary Islands
- CUMMINGS 1982: 33-, GULF OF MEXICO
- ATKINSON & WARD 1988: 329-, S. GEORGIA
- P. WARD 1989: 144-, S. GEORGIA, ANTARCTIC
- REID 1990g: 188

Haloptilus oxycephalus (Giesbrecht, 1889)

card 5

-- Ali-Khan & Ali-Khan 1984: 309, off Pakistan - Indian

Ocean

-- SUÁREZ M., E. 1992: 145-, W. GULF OF MEXICO

-- STEPHEN & SARALADEVI 1973: 174, 175, FIG 2d-f,

INDIAN OCEAN

-- SUAREZ & GASCA 1991: 596-, GULF OF MEXICO

-- RAZOUKS 1994: 172-, PL. 84, ANTARCTIC; 10

-- CAMPOS H. & SUÁREZ M. 1995: 96, 100, FIGS. 5D, E, GULF
OF MEXICO & CARIBBEAN

HALOPTILUS ORYCEPHALUS (GIESBRECHT)

6

-- ROSE 1934: 54-81, ALGERIA

Haloptilus pacificus, Chiba, 1956

new sp., Chiba, 1956, p. 48, fig. 38

-- PARK 1988: 3

Haloptilus paralongicirrus Park, 1970

- -- Park, 1970, pp. 478, 537, figs. 343-355.
- Roe, 1975, p. 347, fig. 24.
- Hulsemann, 1984: 253
- MADHUPRATAP + HARIDAS, 1986: 108, 112, 116 -
INDIAN OCEAN
- AMBLER + MILLER 1987: 561-576, N. PACIFIC
- PARK 1988: 2, 3, 22-23, FIG. 14, ANTARCTIC /
SUBANTARCTIC
- ROE 1974: 103-, N. ATLANTIC
- RAZOUKS 1994: 195; Pl. 96 FIGS. 4-7
- CAMPOS H. + SUÁREZ M. 1995: 100

Calanoida - Heterohabacidae

Haloptilus plumosus (Claus), ♂. ♀.

Hemicalanus — Claus, 1863, p. 178: pl. 28, fig. 12: pl. 29,
— — — — — Corrus, 1885, p. 334.

Haloptilus — Giesbrecht, 1898, p. 119 fig. 4-7

Hemicalanus — T. Scott, 1894, p. 33: pl. 2, fig. 6: pl. 6,

Habitat, Mediterranean; Gulf of
Guinea.

-Deevey & Brooks, 1977: 265

Haloptilus — Giesbrecht & Schmeil, 1898, p. 119

— — A. Scott, 1909, p. 141.

— — Wolfenden, 1911, p. 323.

— — Wilson 1942, p. 189

-- --, Heinrich, 1961. p. 89 (vertical distribution)

--, Wolfenden, 1906, p. 30

--, Arcos, 1975, p. 23

--, Vives, 1972, p. 222.

--, DEEVEY, 1971: TAB. 3

-- PARK 1988: 2

-- ALI-KHAN & ALI-KHAN 1984: 309

HALOPTILUS . PSEUDOXYCEPHALUS

BRODSKY 1950

— — 1950, P. 365, F. 256.

--, Morris, 1970, p. 2301.

--, VERVOORT, 1965: 129

--, MOTODA & MINODA, 1974: 233

-- PARK 1988: 2

-- BRODSKII ET AL. 1983: 14, FIG. 1 (2)

HALOPTILUS SETULIGER Tanaka.

- Tanaka, 1964 d: 40-42, fig. 193 a-h

--, Иточ, 1970: TAB. 1

-- PARK 1988: 2, 21, SYNONYM OF H. LONGICIRRUS

Haloptilus spiniceps (Giesbrecht), ♂. ♀.

Hemicalanus - Giesbrecht, 1892, p. 384: pl. 1-3, 27, 4

Haloptilus - Giesbrecht, 1898, p. 120.

- - Thompson, 1903, p. 28

- - G.O. Sars, 1907, a, p. 19.

- - , Owre, 1962

Habitat. Naples = Malaysia: Atlantic.

- - Wolfenden, 1906: 1010 pl. 96, fig. 45.

- Tanaka, 1964d: 43 (see back)

— — Wolfenden, 1911, p. 324

— — Farran, 1929, p. 268.

— — Sans, 1925, p. 249: pl. 73, f. 6-10.

— — Wilson 1942, p. 189

— — Mori, 1937, P. 76, JAPAN.

-- --, Grice, 1962. p. 223, pl. 25, fig. 17020, pl.
26, fig. 1-5

-- -- Park, 1968, pp. 527-572.

-- --, Hure & Scotto di Carlo, 1968, p. 59.

-- --, Chiba, 1956, p. 40

-- --, Corral, 1970, pp. 192-3, pl. 50

-- --, WHEELER, 1970: TAB. 4

Haloptilus spiniceps (GIESBRECHT) card 2

- , Paiva, 1971, p. 25-26
--, Arcos, 1975, p. 23
--, Bowman, 1971, p. 6 -
--, Roe, 1972a, pp. 298-
--, Vives, 1972, p. 222.
-- Tanaka & Omori, 1971, pp. 249, 255.
--, Furuhashi, 1966: 310
--, Furuhashi, 1961: 108
--, Bjornberg, 1963: 54, 9, 104 (2 Tables), table 10
--, VERVOORT, 1965: 127-129 SYN HEMICALANUS SPINICEPS
--, STEPANJANTS, 1977: 78, 82, 85; TAB. 1, 3

- , DEEVEY, 1971; TAB. 3
- , BINET & DESSIER, 1971: 437
- , OWRE & FOYO, 1972: TAB. 3
- , OWRE & FOYO, ^{1964b} ~~1964a~~: 366
- , SCOTTO DI CARLO, ET AL., 1975: TAB. 1
- , CALF & GRICE (UNPUBL.) IN KETCHUM & RYHER
(UNPUBL.) 1966: APPENDIX:
- SANDER & MOORE 1978: 233.
- GRICE & HART 1962b: TABLE 3, W. NORTH AMERICA
- DAKIN & COLEFAX, 1940: 92, fig. 115a-d
- Bjornberg, 1981: 654, fig. 219 #7

HALOPTILUS SPINICEPS (GIESBRECHT)

CARD 3

-- MADHUPRATAP & HARIDAS, 1986: 108, 109, 112, 113,

INDIAN OCEAN

- Dewey & Brooks, 1977: 265

- De Deckker, 1984: 317

- Hure, 1955: 33

- Hure, 1961: 25

-- AMBLER & MILLER 1987: 561-576, N. PACIFIC

- Vives, 1978: 266, 283

-- PARK 1988: 2, 3, 14-16, FIGS. 7-8, ANTARCTIC/SUB-
ANTARCTIC

Haloptilus spiniceps Giesbercht 1892

card 4

-- Soldevilla, et al. 1988: 60 Canary Islands

-- CUMMINGS 1982: 34-, GULF OF MEXICO

-- COPLEY ET AL. 1989: 12-, NW ATLANTIC

-- E. SUÁREZ ET AL. 1990: 124-, W. GULF OF MEXICO

-- REID 1990g: 188

-- BOWMAN 1978a: 114-

-- SUÁREZ M., E. 1992: 145-, W. GULF OF MEXICO

-- CAMPOS H. + SUÁREZ M. 1995: 96, 100, FIG. 4 C-E, GULF
OF MEXICO, CARIBBEAN

HALOPTILUS SPINICEPS GIESBRECHT

(5)

--ALVAREZ-SILVA 1996: 19, TAB. 2, VERACRUZ, MEXICO

Haloptilus spinifrons (SARS 1900)

--, Chiba & Hirakawa 1972: Tab. 2

— Hure, ~~1961~~: 1961: 24

-- PARK 1988: 7, SYN. OF H. ACUTIFRONS (GIESBRECHT)

Haloptilus tenuis Farran, ♀♂.

- — Farran, 1909 (1906), p. 68: pl. 7, f. 16-22.
- — Sars, 1925, p. 243: pl. 69, f. 1-16
- — , Jespersen, 1940, p. 56. Denmark Strait, w. of Iceland.

Habitat. Atlantic: Mediterranean.

- --, Hure & Scotto di Carlo, 1968, p. 60.
- , Roe, 1972a, pp. 298-
- , Scotto di Carlo, et al., 1975: TAB. 1
- Deevy & Brooks, 1977: 265

--, Vives, 1972, p. 221.

-- KIORTSIS ET AL. 1969: 37-, AEGEAN

- PARK 1988: 2

Haloptilus tenuis Farran 1908

card 2

-- Soldevilla, et al. 1988: 60 Canary Islands

-- ROSE 1934: 54-81, ALGERIA

Haloptilus validus G.O. Sars. ♀.

-- Sars, 1920, p. 11.

-- Sars, 1925, p. 241; pl. 68, f. 1-14.

-- , SEWELL, 1947, p. 194, F. 50. c. arabei Sars.

-- Tanaka & Omori, 1971, pp. 249, 255 ^{fig. 38-6}

Habitat, Temperate Atlantic; Mediterranean

Hure & Scotto di Carlo, 1968, p. 60.

-- PARK 1988: 3

Haloptilus sp.

--, Arcos, 1975, p. 23, Figs. 75-78

-- Tanaka, & Omori, 1971, pp 249, 258
Fig 4 (a-g)

-- JAZDZEWSKI ET AL. 1982: 241, DRAKE PASSAGE

Haloptilus sp. Ali-Khan & Ali-Khan, 1984

-- Ali-Khan & Ali-Khan 1984: 309-310, figs. 35-43, female
only, off Pakistan - Indian Ocean

Haloptilus spp

- , Bjornberg, 1963: table 8, 124, 128
- , Cervigon & Marciano 1965: 280.
- TRANTER 1977: 598. 3 spp.