

***Tristomella laevis* (Verrill, 1875) Guiart, 1938 (Monogenea: Capsalidae) on White and Blue Marlins From the Southwestern Coast of Puerto Rico and Desecheo Island**

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ABSTRACT

Three blue marlins, *Makaira nigricans*, collected from coastal waters of southwestern Puerto Rico in the vicinity of La Parguera, and one collected from Desecheo Island, were infected with a capsalid monogenean identified as *Tristomella laevis*. One white marlin, *Tetrapturus albidus*, collected off La Parguera, was also infected with this parasite. This constitutes the first report of this monogenean in Puerto Rico. This report and previous records suggest that *Tristomella laevis* is a more common monogenean of marlins than previously thought.

While major contributions to our knowledge of the digeneans of marine fish of Puerto Rico stem from the early studies of Cable (1954 a,b, 1956 a,b), Le Zotte (1954), Siddiqi and Cable (1960), and more recently, Dyer et al. (1985, 1986), little is known concerning the monogeneans of marine fish of that region. The present report is concerned with a capsalid monogenean found on the blue marlin, *Makaira nigricans* Lacepède, 1803, and the white marlin, *Tetrapturus albidus* Poey, 1860, of the family Istiophoridae. Both species are distributed throughout the tropical and subtropical waters of the Atlantic Ocean. The blue marlin strays northward at least to the Gulf of Maine, and is densely distributed throughout the Gulf of Mexico, the Caribbean Sea, and throughout the Brazilian Current, while the white marlin strays northward to Nova Scotia and is densely distributed off Florida throughout the Caribbean Sea, and along the Brazilian coast to Argentina. Both species are of commercial value and provide excellent food. They are caught mainly with longlines (commercial fishing boats) and by trolling (sportsfishermen) (Fischer 1978).

MATERIALS AND METHODS

Three *Makaira nigricans*, collected, between April, 1975 and May, 1975 off the southwestern coast of Puerto Rico at La Parguera and one collected on October, 1977 about 15 miles off the northwestern coast of Puerto Rico at Desecheo Island, were examined for parasites. A single *Tetrapturus albidus* captured in December, 1976, was also examined. Areas examined for monogeneans included the skin, fins, buccal cavity, and opercular cavity. All capsalid monogeneans were fixed in 10% formalin. Some were stained in either Harris' hematoxylin or Mayer's acid carmalum, dehydrated, cleared in beechwood creosote, and mounted in Canada balsam. Other specimens were mounted directly in glycerine jelly. Voucher specimens have been deposited in the United States National Museum (USNM) Helminthological Collection, Beltsville, Maryland, and designated No. 81999 - 82003.

RESULTS AND DISCUSSION

Of 1,355 fish representing 78 families, 158 genera, and 73 species collected from the coastal waters of Puerto Rico and Mona and Desecheo Islands between April, 1974, and August, 1990, and examined for parasites, only marlins were found infected with the capsalid monogenean *Tristomella laevis* (Verrill, 1875) Guiart, 1938. Three blue marlins, *Makaira nigricans*, taken off La Parguera, were infected with 7, 3, and 10 specimens of *T. laevis*; one *M. nigricans*, caught off the coast of Desecheo Island was also infected with 2 specimens of this parasite. In addition, one white marlin, *Tetrapturus albidus*, taken in the vicinity of Enrique reef, La Parguera, was found infected with 9 specimens of *T. laevis*.

Tristomella laevis [syn. *Tristoma laevis* Verrill, 1875; *Tristomum histiophori* Bell, 1891; *Tristomum laevis* var. *armata* Goto, 1900; *Capsala laevis* (Verrill, 1875) Johnston, 1929; *Tristomella laevis* (Verrill, 1875) Guiart, 1938] has been reported previously from marlins and other marine fish from several geographic areas. This monogenean was described by Verrill (1875) from specimens found on *Tetrapturus albidus* taken off Block Island, Rhode Island, U.S.A. It was subsequently reported from the black marlin, *Makaira indica* (Cuvier), of Madras, India, by Bell (1891). Price (1938) listed " 'dorado', probably *Coryphaena hippurus* Linnaeus", from Ilha Victoria, Sao Paulo, Brazil, as a host of *Tristomella laevis*. Although Linton (1940) listed the swordfish, *Xiphias gladius* Linnaeus, from Woods Hole, Massachusetts, U.S.A., as a host, we concur with Lawler (1981) that this could be an error and that the swordfish could be a host for the monogenean *Tristoma caccineum* Cuvier, 1817 or *Tristoma integrum* Diesing, 1850. *Tetrapturus lessonae* Canestrini (= *Tetrapturus albidus*) from Concarneau (Finistere), France, was recorded as a host by Dollfus (1949). Later, Pritchard (1961) reported *Istiompax marlina* (Jordan and Hill) [= *Makaira indica* (Cuvier)] captured 60 miles WSW of Cape Recife, South Africa, also as a host.

The finding of *Tristomella laevis* in *Makaira nigricans* and *Tetrapturus albidus* from La Parguera and Desecheo Island constitutes the first report of this monogenean from Puerto Rico. This report and previous records suggest that *T. laevis* is a more common parasite of marlins than previously thought.

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