



HAL
open science

**LESSEPSIAN MIGRANT FISHES OFF THE COAST
OF TUNISIA. FIRST RECORD OF FISTULARIA
COMMERSIONII (OSTEICHTHYES,
FISTULARIDAE) AND PAREXOCOETUS MENTO
(OSTEICHTHYES, EXOCOETIDAE)**

J. Ben Souissi, J. Zaouali, M.N. Bradai, J.P. Quignard

► **To cite this version:**

J. Ben Souissi, J. Zaouali, M.N. Bradai, J.P. Quignard. LESSEPSIAN MIGRANT FISHES OFF THE COAST OF TUNISIA. FIRST RECORD OF FISTULARIA COMMERSIONII (OSTEICHTHYES, FISTULARIDAE) AND PAREXOCOETUS MENTO (OSTEICHTHYES, EXOCOETIDAE). *Vie et Milieu / Life & Environment*, 2004, pp.247-248. hal-03218186

HAL Id: hal-03218186

<https://hal.sorbonne-universite.fr/hal-03218186v1>

Submitted on 5 May 2021

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.

Short Note

LESSEPSIAN MIGRANT FISHES OFF THE COAST OF TUNISIA. FIRST RECORD OF *FISTULARIA COMMERSIONII* (OSTEICHTHYES, FISTULARIDAE) AND *PAREXOCOETUS MENTO* (OSTEICHTHYES, EXOCOETIDAE)

BEN SOUISSI J.¹, ZAOUALI J.², BRADAI M.N.³, QUIGNARD J.P.⁴

¹INAT, 43 Avenue Charles Nicolle, cité Mahrajène 1082, Tunis, Tunisia

²14 rue Virgile, Salammbô, Tunisia

³INSTM B.P. 1035, 3018 Sfax, Tunisia

⁴Ichthyologie, 1 Allée Ermitage, 34170 Castelnau-Le-Lez, France

LESSEPSIAN FISHES
NEW RECORDS
TUNISIA

ABSTRACT. – The Lessepsian migrant fishes along the Tunisian coast are represented by eight species, two of which *Fistularia commersonii* Rüppell, 1835 and *Parexocoetus mento* (Valenciennes, 1846) being reported for the first time.

POISSONS LESSEPSIENS
PREMIÈRES CAPTURES
TUNISIE

RÉSUMÉ. – Sur les côtes tunisiennes les Poissons lessepsiens sont représentés par 8 espèces dont 2 sont signalées pour la première fois : *Fistularia commersonii* Rüppell, 1835 et *Parexocoetus mento* (Valenciennes, 1846).

Since the opening of the Suez Canal in 1869, 62 species of Red Sea Fishes have entered the Mediterranean (Golani *et al.* 2002, Golani *et al.* 2004). The invasion rate has accelerated in recent years (Quignard & Tomasini 2000, Golani *et al.* 2002). A lot of these immigrants, such as *Sargocentron rubrum*, *Saurida undosquamis*, *Siganus luridus*, *S. rivulatus*, *Upeneus moluccensis*, have established large population in the eastern Mediterranean. About 40 species are considered as well established and more than 30 species are abundant (Golani *et al.* 2002).

In the last two decades some of these Erythrean fishes have dispersed westward along the northern and southern coast of the eastern Mediterranean and one of them, *Stephanolepis diaspros*, has reached the northern coast of Sicily (Catalano & Zava 1993). Off the south-western coast from the Nile river to Tunisia, 22 Lessepsian fishes were recorded in Egypt (Golani *et al.* 2002), nine in Libya (Al-Hassan & Silini 1999, Golani *et al.* 2002) and six off the eastern coast of Tunisia. In the gulf of Gabes four were recorded: *Stephanolepis diaspros* by Chakroun (1966), *Siganus luridus*, *S. rivulatus* by Ktari & Ktari (1974), and *Pempheris vanicolensis* by Bradai & Bouain (2001). Off Madhia and Lampedusa two species were found: *Leiognathus klunzingeri* by Ben Tuvia (1966) and *Priacanthus hamrur* by Abdelmoulah (1991). In the Gulf of Tunis, *Siganus luridus* was reported by Ktari-Chakroun & Bouhhal (1971). Among these colonizers

only *Stephanolepis diaspros* is abundant and belongs to the common fishes of the gulf of Gabes (Ben Othman 1971, Bradai 2000).

It appears that the invasion of the Tunisian coast by new Red Sea fishes is a continuing process. In February 1999 a flying fish, *Parexocoetus mento* of 90 mm Standard Length (SL) was collected off Kerkennah Islands with other pelagic fishes (Clupeidae) and in November 2002 a Blue spotted Cornetfish, *Fistularia commersonii*, was caught by gillnet at a depth of 21 m off Zarzis (south Gulf of Gabes); this specimen is 987 mm in Standard Length (SL). The area taken up by *F. commersonii* has rapidly extended as soon as October 2003 when three new specimens were caught near Sfax (central part of the Gulf of Gabes) and five off Kelibia (northern coast of Tunisia).

Parexocoetus mento was caught for the first time in the Mediterranean (Palestine) in 1935 (Bruun 1935), off the Libyan coasts in 1966 (Ben Tuvia 1966) and Albania in 1986 (Parin 1986). *Fistularia commersonii* has been recorded on the 10th of January 2000 off the coast of Israel (Golani 2000). Then, it was located off Turkey (Bilecenoglu *et al.* 2002) and Rhodes (Corsini *et al.* 2002). This immigrant is of particular scientific interest since it appeared along the coast of Levant, almost immediately, in large numbers.

Fistularia commersonii is known to be a piscivorous fish (Khalaf & Disi 1997) living soli-

tary or in large schools in the vicinity of coral reefs (Fritzsche 1976). But Golani (2000) wrote that *F. commersonii* "may also inhabit the shallow sandy shore". The present distribution of *F. commersonii* on the Eastern coast of Tunisia points out that even if there are no coral reefs, the biotic and abiotic conditions are propitious to its establishment in this area where the substratum is rocky or sandy with large area of *Caulerpa prolifera* and *Posidonia oceanica*.

REFERENCES

- Abdelmoulah A 1991. Capture d'un Priacanthus, *Priacanthus hamrur* (Forsskål, 1775) poisson indo-pacifique dans les eaux tunisiennes. *Bull Inst Océanogr Pêche Salammbô* 8: 111-114.
- Al-Hassane LAJ, El-Silini OA 1999. Check-list of bony fishes collected from the Mediterranean coast of Benghazi, Libya. *Rev Biol Mar Ocean* 34(2): 291-301.
- Ben Othman S 1971. Observations hydrologiques, dragage et chalutage dans le sud-est tunisien. *Bull Inst Océanogr Pêche Salammbô* 2(2): 103-120.
- Ben Tuvia A 1966. Red Sea fishes recently found in the Mediterranean. *Copeia*: 254-275.
- Bilecenoglu M, Taskavak E, Kurt KB 2002. Range extension of the three Lessepsian migrant fishes *Fistularia commersonii*, *Sphyræna flavicauda*, *Lagocephalus suezensis* in the Mediterranean. *J Mar Biol Ass UK* 82: 525-526.
- Bradai MN 2000. Diversité du peuplement ichtyque et contribution à la connaissance des Sparidés du golfe de Gabès. Th Doct Etat Es-Sci nat, Univ Sfax Tunisie, 500 p.
- Bradai MN, Bouain A 2001. Diversité de la faune ichthyologique du golfe de Gabès. Actes VIII^e Journ nat Recherche agri Nabeul 12-14 nov 2001. INSTM/PEMPH 1, 6p.
- Bruun AF 1935. *Parexocoetus*, a Red Sea flying fish in the Mediterranean. *Nature* 136: 553.
- Catalano E, Zava B 1993. Sulla presenza di *Stephanolepis diaspros* Fr. Brunn. nelle acque italiane (Osteichthyes, Monacanthidae). *Ric Biol Selvag* 21 suppl: 379-382.
- Chakroun F 1966. Captures d'animaux rares en Tunisie. *Bull Inst Océanogr Pêche Salammbô* 1(2): 75-79.
- Corsini M, Kondilatos G, Economidis PS 2002. Lessepsian migrant *Fistularia commersonii* from Rhodes marine area. *J Biol* 61: 1061-1062.
- Fritzsche RA 1976. A review of the Cornetfishes, genus *Fistularia* (Fistularidae) with a discussion of intrageneric relationship and zoogeography. *Bull Mar Sci* 26: 196-204.
- Golani D 2000. First record of the Bluespotted Cornetfish from the Mediterranean Sea. *J Fish Biol* 56: 1545-1547.
- Golani D, Orsini-Relini L, Massuti E, Quignard JP 2002. CIESM Atlas of Exotic species in the Mediterranean. 1 Fishes, F Briand Edit. CIESM Monaco, 254 p.
- Golani D, Orsi-Relini L, Massuti E, Quignard JP 2004. Dynamics of Fish invasions in the Mediterranean: update of the CIESM Fish Atlas. *Rapp Comm int Mer Medit* 37: 367.
- Khalaf MA, Disi AM 1997. Fish of Gulf of Aquaba. Edit Aquaba Jordan, The Marine Science Station Aquaba, Jordan, 257 p.
- Ktari-Chakroun F, Bouhlal M 1971. Capture de *Siganus luridus* (Rüppel) dans le golfe de Tunis. *Bull Inst Océanogr Pêche Salammbô* 2(1): 49-52.
- Ktari F, Ktari MH 1974. Présence dans le golfe de Gabès de *Siganus rivulatus* (Forsskål, 1775) (Poissons, Siganidae) parasité par *Pseudohaliotrematodides polymorphus*. *Bull Inst Océanogr Pêche Salammbô* 3(1-4): 95-98.
- Parin NV 1986. Exocoetidae. In Fishes of the north-eastern Atlantic and the Mediterranean, Whitehead PJP, Bauchot ML, Hureau JC, Nielsen J, Tortonese E Eds, UNESCO, Paris 2: 612-619.
- Quignard JP, Tomasini JA 2000. Mediterranean fish biodiversity. *Biol Medit* 7 (3): 1-66.

Reçu le 1^{er} décembre 2003; received December 1, 2003
 Accepté le 26 juillet 2004; accepted July 26, 2004