

## THREATENED FISHES OF THE WORLD: *Knipowitscia mermere* Ahnelt, 1995 (Gobiidae)

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### ARTICLE INFO

Received: 28 January 2014

Received in revised form: 28 March 2014

Accepted: 31 March 2014

Available online: 11 April 2014

#### Keywords:

*Knipowitscia mermere*

Anatolia

Lake Marmara

Endemic

### ABSTRACT

*Knipowitscia mermere* is one of the endemic freshwater gobiid fish in western Anatolia with a distribution area restricted to Marmara Lake. It was defined by Ahnelt in 1995. The species is critically endangered since its habitat is confined to Lake Marmara (area less than 50 km). The main threat to its population is habitat destruction, pollution and water extraction.

### INTRODUCTION

#### COMMON NAME

Marmara goby (English) (Fig 1.).



**Fig 1.** *Knipowitscia mermere*, sampled at Marmara Lake in 2012  
(Photo: A. İlhan)

#### CONSERVATION STATUS

IUCN International Red List: Critically Endangered B1ab(iii) (Crivelli, 2006); Endangered in Turkey (EN) (Fricke et al., 2007).

#### IDENTIFICATION

D1: VI; D2: I/ 7-8; A: I/6-7; P: 15-17; V: I/5+5/I; C: 11-13 (Ahnelt, 1995).

### DISTRIBUTION

The species is endemic in Marmara Lake, western Anatolia, Turkey.

#### ABUNDANCE

Özcan (2009) reported 12 specimens from two samplings in the same locality in March and September in 2007. However, the present study carried out two fishing operations using a beach seine net of 3 mm mesh size and 25 m in length during the months of September and November in 2012, after which an area of about 500 m<sup>2</sup> was scanned and 39 specimens obtained.

#### HABITAT AND ECOLOGY

Adults prefer small, low oxygenated and permanent waters with lots of vegetation. *Knipowitschia mermere* apparently prefers low oxygenated freshwaters with a very low salinity. The aquatic vegetation in the habitat probably acts as a food supply depot and provides shelter for it against predators such as pike and other fishes which inhabit its distribution area (Özcan, 2009).

#### THREATS

Habitat destruction, water extraction for irrigation and pol-

lution (Crivelli, 2006); Habitat loss, Eutrophication/pollution (Fricke et al., 2007). Of the threats above, the current greatest risk is presence of many exotic species in the lake, four of which (*Sander lucioperca*, *Carassius gibelio*, *Atherina boyeri* and *Pseudorasbora parva*) inhabit the lake. They feed on other fish, fish eggs and fish larvae (Billard, 1997; Muus and Nielsen, 1999). In addition, consumption of the lake water to irrigate agricultural land around it causes water level to decrease, accelerating habitat destruction, especially during the summer months.

## CONSERVATION

No processes exist for the conservation of the species.

## CONSERVATION RECOMMENDATIONS

Marmara Lake, the unique habitat of the species, is used for irrigation of wide agricultural land around it. Because it is a shallow lake, excessive water consumption should be avoided, especially in the summer. Moreover, populations of such exotic fish species such as *Sander lucioperca*, *Carassius gibelio*, *Atherina boyeri* and *Pseudorasbora parva* should be kept under control.

## Sažetak

### UGROŽENE VRSTE RIBA U SVIJETU: *Knipowitschia mermere* AHNELT, 1995 (Gobiidae)

*Knipowitschia mermere* jedna je od endemskih slatkovodnih riba gobi u zapadnoj Anatoliji s distribucijom ograničenom na Mramorno jezero, što je definirao Ahnelt 1995. godine. Ova vrsta je prilično ugrožena jer je njezino stanište ograničeno na Mramorno jezero s površinom manjom od 50 km<sup>2</sup>. Glavne prijetnje za dodatnu ugroženost su uništavanje njezinog staništa, onečišćenje i korištenje vode.

**Ključne riječi:** *Knipowitschia mermere*, Anatolija, Mramorno jezero, endemski

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