

# Population structure and growth of *Aphanius anatoliae sureyanus* Neu, 1937 (Osteichthyes: Cyprinodontidae), endemic to Burdur Lake, Turkey

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**Abstract.** The age, sex and body size of the killifish *Aphanius anatoliae sureyanus* Neu, 1937 have been studied at Burdur Lake, to which it is endemic. Females made up 16.7%, males 25.9% and young individuals 57.4% of the population. Data on the length-weight relationship and the Bertalanffy growth formula are given. *Arctodiaptomus burduricus* and *Brachionus plicatilis* are the main food resources.

**Kurzfassung.** Alter, Geschlecht und Körpergröße des Zahnkärpflings *Aphanius anatoliae sureyanus* Neu, 1937, wurden am Burdursee in der Türkei untersucht, wo die Art endemisch vorkommt. Weibchen machen 16,7% der Population aus, Männchen 25,9% und Jungtiere 57,4%. Daten zum Längen-Gewichtsverhältnis und zur Bertalanffy-Wachstumskurve werden gegeben. *Arctodiaptomus burduricus* und *Brachionus plicatilis* stellen die wichtigsten Nahrungsbestandteile dar.

**Key words.** Burdur Lake, *Aphanius anatoliae sureyanus*, growth characteristics, diet.

## Introduction

The genus *Aphanius* consists of about 14 species that occur in fresh or brackish waters along the north coast of Africa, Spain, Italy, Greece, and Turkey and along the coast of the Arabian Peninsula (PARENTI 1981, HRBEK & MEYER 2003), with the centre of diversity in Turkey (WILDEKAMP et al. 1999). Six species and four subspecies comprising two major clades occur in Anatolia; *A. asquamatus*, *A. fasciatus*, *A. danfordii*, *A. mento*, *A. villwocki*, *A. a. anatoliae splendens*, *A. a. anatoliae*, *A. a. transgradiens* and *A. a. sureyanus* (WILDEKAMP 1993, WILDEKAMP et al. 1999, HRBEK & MEYER 2003, HRBEK & WILDEKAMP 2003).

*Aphanius anatoliae sureyanus* is endemic to the Burdur Lake. It belongs to the western evolutionary group of *Aphanius* on the Anatolian plains and can be found in schools near the lake shore, as well as in some small mountain lakes close to Burdur Lake. It also inhabits springs near the shores of the lake, in water that varies from relatively fresh to strongly brackish and sometimes even sulphurous. With the exception of some algae, these habitats lack submerged vegetation (WILDEKAMP 1993, WILDEKAMP et al. 1999).

WILDEKAMP et al. (1999) studied the taxonomy and distribution of *Aphanius* in Turkey. The molecular phylogeny and historical biogeography of the *Aphanius* species complex of Central Anatolia have been studied by HRBEK et al. (2002). HRBEK & MEYER (2003) studied the phylogeny of Eurasian killifishes. The genetic relationships between the Anatolian species and subspecies of *Aphanius* have been studied by BARDAKÇI et al. (2004). So far, most