Common Name Eastern gambusia (Gambusia, Mosquitofish, Top minnow, Plague minnow)

Scientific Name *Gambusia holbrooki* (Girard, 1859)

Eastern gambusia female

Identification

A small fish with a rounded tail, distinctly flattened head and an upturned mouth. Maximum length 60 mm. The single high, soft-rayed dorsal fin originates well back on the body. Females are much larger than males and usually have a large, black blotch just above the vent. Males have the front rays of the anal fin elongated and modified to form the gonopodium, which is used in breeding. Usually, olive to brownish on the back, with bluish-grey sides and a silvery belly.

Biology and Habitat

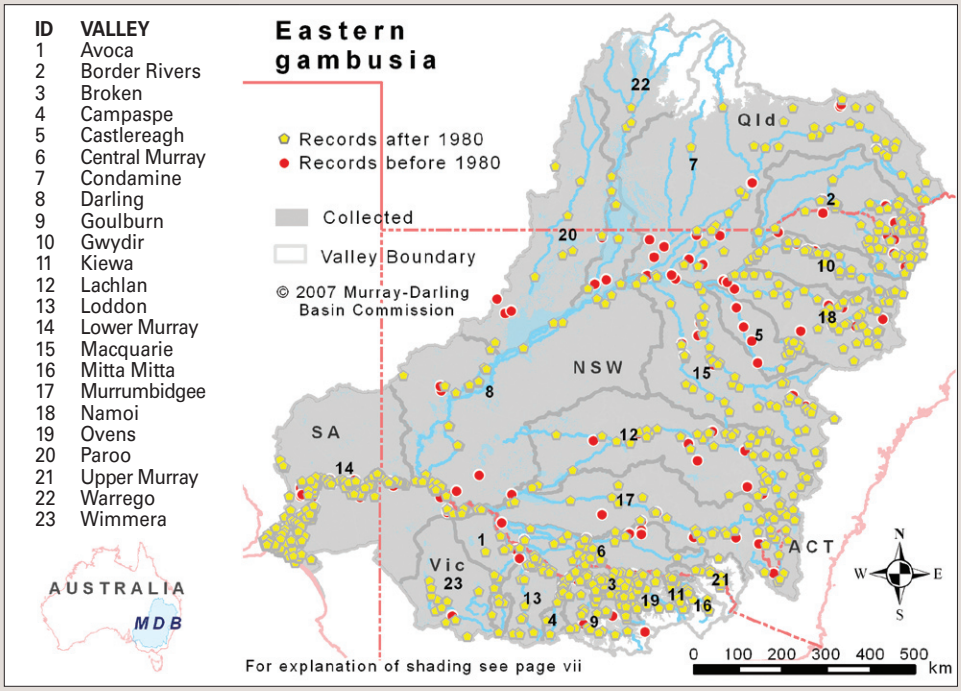
The Eastern gambusia is commonly found in lakes or still or slow-flowing streams, mostly around the edges or amongst freshwater plants. Maturity can be reached after only two months, at about 25 mm long. Breeding occurs during the warmer months and a female produces about 50 young in each batch, and up to nine batches per year. The species does not lay eggs, but produces live young. The fertilised eggs develop inside the female and the young are a few millimetres long when born.

The Eastern gambusia is not known to migrate. It tolerates of a wide range of water temperatures, oxygen levels, salinities and turbidities. Because of its ability to breed rapidly, it has assumed plague proportions in many habitats.

Often referred to as Mosquitofish, it was introduced into Australia for mosquito control in the 1920s, but unfortunately mosquito larvae do not figure prominently in its diet. Consequently, Mosquitofish should not be used as the common name as it implies some environmental or social benefit, which is largely incorrect. Gambusia are primarily carnivorous and the diet contains a range of small freshwater invertebrates and wind-blown terrestrial insects.

Impacts on Native Fish

An aggressive species, Eastern gambusia chase and fin-nip fish much larger than themselves. They also prey on the eggs of native fish and frogs and larval native fish, and significantly reduce growth rates of small native fish. Gambusia are implicated in the decline of



more than 30 fish species world-wide, at least nine of which occur in Australia. It has recently been listed as a key threatening process for frog populations in NSW, and is implicated in the decline of more than 10 species of frogs in Australia.

Distribution and Abundance

Native to rivers draining to the Gulf of Mexico, Eastern gambusia was introduced into Australia in 1925. Health authorities made further introductions in the 1930s and the species was distributed to many military camps during the Second World War. Now widely distributed throughout Australia, it is commonly found in farm dams, slow-flowing waters and shallow wetlands, and is widespread and abundant across the Basin.

General References

Aarn & Ivantsoff 2001; Arthington & Marshall 1999; Howe *et al.* 1997; Ivantsoff & Aarn 1999; Lloyd *et al.* 1986; McDowall 1996b; NSW NPWS 2003; Pen & Potter 1991; Stoffels & Humphries 2003.

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