

*Xiphophorus mixei*, Sol



Female



Male

Strain Code: Sol

Phenotypes scored: None

Introduction:

The progenitors of this stock were originally collected from the Rio del Sol, on the Isthmus of Tehuantepec in Oaxaca, Mexico, in 1992 by Morizot, Kallman, Borowsky, and Isla. The stock of Sol fish at the XGSC were acquired from Dr. Don Morizot' Lab at the University of Texas – MDACC on November 22, 2002.

This newly described species, like *X. clemenciae*, lacks a row of spots in the dorsal fin, as found in *X. helleri*. The *X. clemenciae* and *X. mixei* populations differ, however, in the color of the spots at the base of the caudal fin (red in *X. clemenciae*, and black in *X. mixei*), as well as in number (fewer spots are seen in Sol fish). In addition, the sword tapers more rapidly in Sol fish. Males show a reddish coloration, although, it was noted that the father of one of these broods showed no trace of this red coloration (K. Kallman, pers. comm.).

Sexing:

Fish are sexed at about 3 months of age. Males should be kept in small numbers to allow them to mature quickly because they mature considerably slower than do the females. After completing sexual maturation, they can be combined with the other males of their pedigree. Sex determination has not been established; however this stock is extremely prone to biased sex ratios.

Scoring:

There are no polymorphic pigment patterns currently scored in Sol fish maintained at the Stock Center. Initially, these fishes were scored for the presence or absence of 5 lateral stripes. However, these data did not yield results consistent with a

simple genetic model of inheritance, and scoring of this trait was discontinued. Sword color should be noted to ensure there is no variation in this trait.

Maintenance:

Because of biased sex ratios a larger number of mating should be used to maintain this stock, about 6 if possible. Reciprocal matings are used. Also at least one tank of females and one tank of males should be kept for the previous generation until males and females of the new generation have been positively identified.

Stock Source:

Dr. Don Morizot, the University of Texas MDACC, 11/22/02.