

Xiphophorus evelynae



Female (se-1)



Male (se-2)

Strain code: eve

Phenotypes scored: Spotting (or speckling pattern): speckled-1 (Se-1), speckled-2 (Se-2) and wild type (+).

Introduction:

The *X. evelynae* arrived from Dr. Manfred Schartl of Germany in 1998. Progenitors of this stock were collected from a lake near Necaxa, Hidalgo, Mexico. This stock displays two spotting patterns, an X-linked speckled-1 (Se-1) and a Y-linked speckled-2 (Se-2). There is also an X-linked wild-type (+) allele. Se-1 fish display a few larger spots, and Se-2 fish display many smaller spots, such that the pattern is often described as 'salt and pepper'. There is also vertical barring seen predominantly in males, and concentrated toward the middle of fish. Sex determination in this stock is XX /XY.

Sexing:

Fish are sexed at about 2 months of age. The results should be rechecked and confirmed over the month following the initial sexing, to identify any late-maturing males.

Scoring:

Females may display the Se-1 or + pattern; males display the Se-2 spotting pattern. However, males may also carry the Se-1 or + pattern allele, but these phenotypes are masked by Se-2. Fish should be scored for Se-1, Se-2, and +.

Maintenance:

Six matings are set up for each generation. Reciprocal crosses are established between the available pedigrees, for the purpose of minimizing inbreeding. Until the genetics are better understood, matings should use only one female and one male per mating, i.e., an Se-1 female is mated to a Se-2 male. Depending on how matings were designed for the previous generation, exact genotypes may not be known for all of the fish. Matings can be designed to determine these genotypes from the offspring produced. The following is an example of a mating plan for one generation;

| | | |
|------------|---|------------|
| X-+ X-+ | x | Se-2 |
| female | | male |
| X-Se-1 X-+ | x | X-+ Y-Se-2 |
| female | | male |
| X-Se-1 X-+ | x | Se-2 |
| female | | male |
| X-+ X-+ | x | X-+ Y-Se-2 |
| female | | male |
| X-+ X-+ | x | X-+ Y-Se-2 |
| female | | male |
| X-+ X-+ | x | Se-2 |
| female | | male |

Stock source:

Prof. Manfred Scharl, Wurzburg, Germany, 11/9/98.