X. maculatus, YSp

Male

Strain code: YSp

Phenotypes scored: Pigment patterns: spotted dorsal (Sd); dorsal red (Dr), spotted side (Sp), shoulder spot (ss), dot (D).

Introduction:

This stock is a product of a crossover event in Jp163B which resulted in linkage of the spotted side (Sp) to the Y chromosome. This line is maintained by mating a YSp male with a Jp163A female; therefore, these males also inherit the X linked gene for spotted dorsal & dorsal red, X^{SdDr}. P-1, the earliest P-allel, is associated with the Y-Sp chromosome and results in early maturing males.

Sex determination / sexing:

Chromosomal sex determination is XX / XY. The fish are sexed at 1.5 to 2 months of age. At this time, the females can be discarded.

Scoring:

This stock cannot be scored for all the above patterns at the time of sexing, because they do not develop until the fish are older. Only Sp may be apparent. Nevertheless, females are scored and then discarded because they are not needed for further crosses. At maturity the fish are scored for Sp, Sd, Dr, ss and dot.

Stock maintenance:

Two to three matings are set up to propagate each generation; however, the male offspring of only one or two new pedigrees are required for the successive generation's matings to Jp163A females. The mating scheme and expected offspring are:

$X^{SdDr}\ X^{SdDr}$ ss D	(x)	$X^{SdDr}\ Y^{Sp}$ ss D	(P1)
(Jp163A)		(YSp male)	

$X^{SdDr}\ X^{SdDr}$ ss D (females), $X^{SdDr}\ Y^{Sp}$ ss D (males) (F1)

The progeny are scored for possible crossovers in males; and crossovers in the females cannot be detected until they are raised to maturity and the patterns have developed.

Stock source:

Prof. Klaus Kallman, the New York Aquarium, 9/10/92.