

NAME Kelvin Saxton      BIO 415 Article Review

**Citation Reference:** Costa WJEM.2006.Redescriptionof Kryptolebiasocellatus (Hensel)and K. caudomarginatus (Seegers)(Teleostei: Cyprinodontiformes: Rivulidae), two killifishes from mangroves of south-eastern Brazil J. Ichthyol. Aquatic Biol. 11:5–12.

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**Describe the Purpose of the Study:**

A biomedical study of the self fertilization in specific hermaphroditic vertebrates based on their genetic structure (environmental sex determination).

**Describe the Setting:**

These research findings were performed in various laboratories.

**Describe the Test Animals**

The mangrove rivulus (*kryptolebias marmoratus*) shows environmental sex determination and their sex patterns are inconsistent. There have been no findings of female fish making this species an androdioecious vertebrate.

**Describe the Mechanism of measurement for Respiration:**

They were given as an “annotated genome sequence for the mangrove rivulus from a lab-reared population of the Reckley Hill Lake (RHL) lineage. The researchers “compared the *K. marmoratus* reference genome to genomic data generated for the sister species *K. hermaphroditus*”.

**Summarize the author’s conclusions:**

The genome sequence was compared with the ones of its sister species, *Kryptolebias hermaphroditus*. The size of the *k. Marmoratus*’ genome was estimated at 0.936 picograms, translating 915 megabase pairs (Mb). As both species were compared, the ones that were fit for research, only 0.4% was recorded as homozygous for an alternate allele and 0.1 % as heterozygous for an alternate allele. The rest of their alleles were identical