

## INDEX OF SPECIFIC NAMES MENTIONED IN THIS WORK.

- altumi = *Olor bewickii*.  
 altumii = *Olor bewickii*.  
 americanus = *Olor columbianus*.  
 anatoides = *Coscoroba candida*.  
 atrata (CHENOPIA).  
 bewicki = *Olor bewickii*.  
 bewickii (OLOR).  
 bewickii = *Olor columbianus*.  
 berwickii = *Olor bewickii*.  
 buccinator (OLOR).  
 buccinator = *Olor buccinator*.  
 candida (COSCOROBA).  
 candidus = *Coscoroba candida*.  
 chionis = *Coscoroba candida*.  
 columbianus (OLOR).  
 coscoroba = *Coscoroba candida*.  
 cygnas = *Cygnus gibbus*.  
 cygnus = *Cygnus gibbus*.  
 cygnus (OLOR).  
 cygnus = *Olor columbianus*.  
 davidi (COSCOROBA).  
 dircea = *Cygnus unwini*?  
 falconeri (PALEOCYGNUS).  
 ferus = *Olor cygnus*.  
 ferus = *Olor columbianus*.  
 gambensis (PLECTROPTERUS).  
 gibbosus = *Cygnus gibbus*.  
 gibbus (CYGNUS).  
 herenthalsi (CYGNUS).  
 herenthalsii = *Cygnus herenthalsi*.  
 hyperboreus = *Coscoroba candida*.  
 immutabilis (CYGNUS).  
 immutabilis = *Cygnus unwini*.  
 islandicus = *Olor cygnus*.  
 islandicus = *Olor bewickii*.  
 linnei = *Olor cygnus*.  
 mansuetus = *Cygnus gibbus*.  
 melancorypha = *Sthenelus melancorypha*.  
 melancorypha (STHENELUS).  
 melanocephala = *Sthenelus melancorypha*.  
 melancoryphea = *Sthenelus melancorypha*.  
 melancoryphus = *Sthenelus melancorypha*.  
 melanorhinus = *Olor bewickii*.  
 melanorhynchus = *Olor cygnus*.  
 minor = *Olor bewickii*.  
 moschata (CAIRINA).  
 musicus = *Olor bewickii*.  
 musicus = *Olor columbianus*.  
 musicus = *Olor cygnus*.  
 nigricollis = *Sthenelus melancorypha*.  
 novæ-hollandiæ = *Chenopsis atrata*.  
 olor = *Cygnus gibbus*.  
 olor = *Cygnus unwini*.  
 olor = *Olor cygnus*.  
 passmorei = *Olor buccinator*.  
 passmori = *Olor buccinator*.  
 plutonia = *Chenopsis atrata*.  
 rüppellii (PLECTROPTERUS).  
 sibilans = *Cygnus gibbus*.  
 sibilus = *Cygnus gibbus*.  
 unwini (CYGNUS).  
 urwini = *Cygnus unwini*.  
 xanthorhinus = *Olor cygnus*.

**NOTE ON THE HABITS AND THE REARING OF THE AXOLOTL,  
 AMBLYSTOMA MEXICANUM.\***

**By M. CARBONNIER.**

These amphibians live very well in an aquarium of suitable capacity—30 to 40 liters of water for each pair. This water should be renewed about once a fortnight. Some clusters of aquatic plants (*Elodea canadensis*) will assist in maintaining the purity of the water, and their topmost branches will serve, at the same time, as a support for the eggs deposited by the female. These eggs resemble frogs' eggs; they are covered with a similar viscous material and are deposited in strings instead of being agglomerated; they hatch in from 15 days to 3 weeks, depending upon the temperature of the water.

\* Translated from the French by Tarleton H. Bean.

According to my observations, several days before the spawning the male spermatozoa all the water in the aquarium and the zoosperms (spermatozoa) penetrate directly into the oviduct of the female, thus fecundating the eggs. The axolotl is capable of spawning five or six times a year, and produces each time from 150 to 200 young. A dim light is better for the maintaining of axolotls than a bright light, which they dislike.

I have some individuals in which the branchiæ are altogether absorbed; they have thus passed into the *Amblystoma* state and respire entirely by the lungs (*poumons*). I have never been able to secure reproduction under this last condition.

I feed my axolotls with earth-worms; they are fond of tadpoles also; in the absence of these things I frequently give them calf liver, presenting it to them in small morsels by the aid of a piece of wood.

The axolotl in its normal state is black; the albino is a variety which I have obtained among the spawnings of the former, and which became permanent and fertile like the black form.

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**DESCRIPTION OF A NEW SPECIES OF URANIDEA (*URANIDBA POL-LICARIS*) FROM LAKE MICHIGAN.**

**By DAVID S. JORDAN and CHARLES H. GILBERT.**

*Uranidea pollicaris* sp. nov. (29663.)

Body robust; nape prominent, the profile of head steeply declined, thence to tip of snout in a straight or slightly concave line; head much depressed, broad and flat above, evenly narrowed forwards to the broad, much depressed, bluntly-rounded snout; eyes small, with extensive vertical range, their diameter less than snout or than the flat interorbital width; mouth rather small, anterior, with but little lateral cleft; maxillary reaching vertical from front of orbit; teeth villiform on jaws and vomer, none on palatines; preopercular spine large and strong, spirally curved upwards and inwards, wholly invested with membrane; a single, sharp, concealed spinous point below angle of preopercle; isthmus broad, without fold, its width equaling distance from snout to middle of pupil.

Spinous dorsal rather low, nearly uniform in height, connected with second dorsal by a low membrane; longest spine equaling length of snout; soft dorsal long, and its longest ray  $2\frac{1}{2}$  in head; origin of anal fin under third dorsal ray, its last ray under sixteenth of dorsal; highest anal ray  $2\frac{1}{2}$  in head; ventrals I, 4, reaching two-thirds distance to vent; pectoral rays all simple, unbranched, the longest reaching vertical from vent, and contained  $1\frac{1}{8}$  times in head. Vent equidistant between tip of snout and base of caudal fin.

Skin everywhere smooth.

Head  $3\frac{2}{3}$  in length to base of caudal; depth  $4\frac{3}{4}$ ; eye  $5\frac{1}{3}$  in head.