

State of the Indiana University Axolotl Colony--1982

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The winter of 1982 finds the Axolotl Colony in good condition, with frequent spawnings. This past year we enjoyed a "bumper crop" of 350 spawnings. We supplied approximately 70 outside (of I.U.) laboratories with axolotl experimental material. This breeding season the spawning frequency appears to be somewhat reduced, but we continue to service most of our requests for axolotl embryos. Our goal continues to be the gradual improvement of our supply capabilities. Especially, we are concerned with supplying users with embryos when they need them.

Although the Axolotl Colony personnel has been stable for several years, a major change will soon take place. Nathan Montoya, curator, and Anne Vestuto, record-keeper, will be leaving the Axolotl Colony (and Bloomington) in early May. Nathan and Anne have done outstanding jobs in organizing and maintaining the operation of the colony. All of us who are associated with the colony appreciate their fine job performance, and owe them a great debt of gratitude. They have contributed significantly to the smooth operation of the Axolotl Colony. We wish them good fortune in their future endeavors, and their upcoming marriage! An advertisement for the curator's position appears at the back of this issue of the Newsletter.

The following aspects of the operation of the Axolotl Colony are high-lighted:

Shipping: As most recipients of experimental material are aware, we no longer ship via Air Freight. It became too expensive and--at times--unreliable. We have experienced good success in the past two years shipping live material through the U.S. Postal Service, either by Express Mail or Special Delivery.

Which service is employed depends upon the zip-code of the consignee's city, since Express Mail does not reach all cities from Bloomington. Postal Service shipments are much less expensive than Air Freight, and generally prompt and safe.

We do, however, rely upon consignees returning the shipping containers promptly. Also, we require prompt reimbursement of postage fees. Those fees are cycled through a "revolving" shipping fund which--on occasion--becomes depleted from lack of promptness on the part of users. Your support is very much appreciated, not only by the Axolotl Colony staff, but also by the next consignee on our shipping list (one day it could be you!).

Procedure for ordering: Potential users should either telephone or write to the Axolotl Colony concerning needs. Requests are added to our shipping lists and material is sent as soon as it becomes available.

Availability of material (and specific genes): As a general rule embryos and young larvae are in plentiful supply during the breeding season (October-May). As larvae grow through the juvenile stage we limit their numbers, since we do not have sufficient space or manpower to raise vast numbers of larger animals. Availability of older animals is, therefore, somewhat limited. By the 15 cm (length) stage we reduce our stock to animals needed for breeding stock or genetic searches.

For those users interested in regeneration studies we suggest that you obtain young larvae from the Axolotl Colony. They are plentiful and can be raised in your own laboratory to the appropriate size.

Concerning the availability of adult animals, it should be pointed out that we keep all of our adult stock during the breeding season. Only during

early summer to early fall, when we are culling our breeding stock, are we likely to offer adult animals to experimenters.

Specific genes in good supply include e (eyeless), fg (fluid imbalance/gill), c (cardiac), and the pigment mutants d (white), m (melanoid), a (albino), and ax (axanthic). The albino and axanthic stocks are reluctant spawners, but we do maintain good numbers of the parental types. We have new young stock in the triple mutant combination a, m, and d. Although only rarely requested, the gill mutants (r, x, y, and g) are maintained in adequate numbers. The limb mutants such as s and ut are also maintained in adequate numbers.

Current Directions: Our main goals are to maintain and expand various stocks and to supply material to as many researchers as possible. Along with those primary goals are the goals of recognizing new mutant genes and recovering those which are in danger of becoming extinct. We feel optimistic about recovering lost genes since we have recovered such mutants as mi (microphthalmic), t (twisted gill), st (stasis), and y (vasodilation). We have also discovered a new "cardiac" gene in the F₂ of a new line of Mexican imports. This new line is named the "Humphrey" strain, in honor of the late Dr. Rufus R. Humphrey. This new cardiac gene tests out as non-allelic to the already characterized colony cardiac gene. Yet, the phenotype mimics the original cardiac (gene c) phenotype! There also appears to be a spastic-like lethal gene in the Humphrey strain.

We are presently attempting to raise adequate stocks of those new mutants, as well as several of the other genes.

Obviously, we feel optimistic about the status of the I.U. Axolotl Colony!