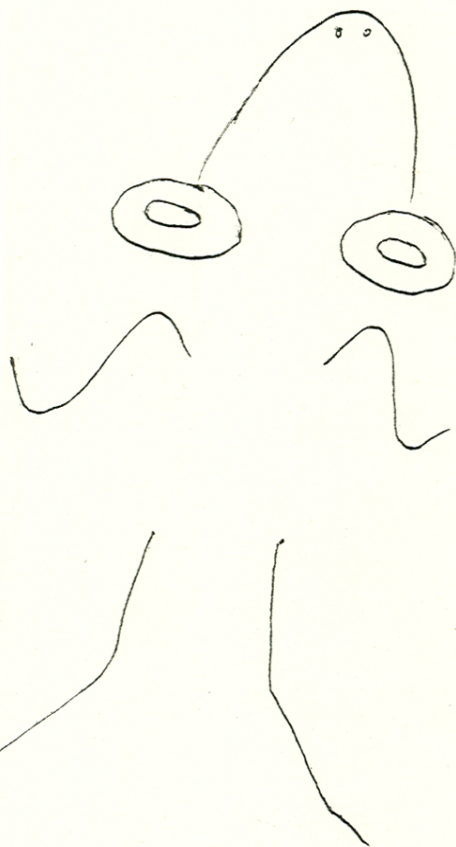


PRICE LIST

THE AMPHIBIAN FACILITY
Division of Biological Sciences and
Center for Human Growth and Development
The University of Michigan

Director: George W. Nace, Ph.D.
Coordinator: Christina M. Richards, Ph.D.

For Visits and Inquiries about
Orders:

Amphibian Facility
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405 S. Fourth St.
Ann Arbor, MI 48103
(313) 764-7104

For Correspondence:

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August, 1978

Price Policy

The Amphibian Facility is supported by the National Institutes of Health through Grant RR 00572 from the Division of Research Resources. While funds for research and development of the resource are provided, it is expected that the production costs of amphibians provided to others be recovered through their sale. Because of the University base of our work we cannot become involved, however, in large scale production or sale of animals of the type available on the commercial market at prices which undercut commercial dealers. This new price list reflects this policy and is effective 1 September 1978.

Sales Policy and Reporting Requirements

The limited stock of animals we can maintain in anticipation of orders forces us to give first priority to those who use the animals for research purposes.

To evaluate the impact of research resources and thus to maintain the funding of such resources, the supporting agencies require reports on the use of animals. Consequently, those who use resource animals are asked to provide information which is forwarded to the granting agency at the time of annual reports. We will provide you with the report form at the time of your first billing in each of our grant years. Since our continued funding depends upon our cooperation with NIH, we urgently request your cooperation with us. PLEASE RETURN THE COMPLETED REPORT FORMS TO US PROMPTLY AFTER WE HAVE SENT THEM TO YOU.

When applicable, please cite the Amphibian Facility as the source of animals and send us a reprint.

Standards and Sources

Nace, G.W., D.D. Culley, M.B. Emmons, E.L. Gibbs, V.H. Hutchison and R.G. McKinnell, 1974. "Amphibians: Guidelines for the Breeding, Care and Management of Laboratory Animals: I.L.A.R. (NAS/NRC). Washington, D.C. 150 p. ("Guidelines")

Animals in the Amphibian Facility are maintained according to the standards in "Guidelines". We urge you to follow them also. "Guidelines" is available from the National Academy of Sciences Printing and Publishing Office, 2101 Constitution Ave., Washington, D.C. 20148, order number ISBN 0-309-022-10-X; \$5.25. Note particularly the standard terminology presented on page 27 and the instructions for handling newly received animals given on page 42.

Nace, G.W. and J.K. Rosen, 1978. Sources of Amphibians for Research. II. Appendix V. In: R.G. McKinnell, Cloning: Nuclear Transplantation in Amphibia. University of Minnesota Press. ("Sources II") (To be republished in Axolotl Newsletter and Herpetological Review in Fall, 1978. Reprints are available from the Amphibian Facility.)

In addition to listing sources for animals, "Sources II" updates some of the information in "Guidelines" and cites additional information.

ANIMALS AND SERVICESLeopard Frogs

See "Sources II" for definition of Leopard Frogs.

Progeny of Rana pipiens at almost any stage are available throughout the year. Larvae or juveniles with unusual chromosome combinations such as gynogenetic diploid, triploid or tetraploid can be produced on request. Mutants such as burnsi, kandiyohi, albino or melanoid are available on occasion. Ask for quotes on such animals. R. sphenoccephala (utricularia), R. berlandieri, and R. blairi may be requested.

The controlled reproduction of all anurans, especially R. pipiens and R. catesbeiana, is still uncertain, thus explaining the elevated charges for lab-bred animals.

Rana catesbeiana, R. clamitans and R. sylvatica

While a few laboratory-reared and -bred individuals are on hand, we are not generally prepared to accept orders for these animals. Again, please refer to "Sources II".

Bombina orientalis

All stages are available. (These hardy laboratory animals can produce eggs year-round at repeated intervals.) A "handout" on handling them is available on request; also, see "Guidelines".

Xenopus laevis

All stages are available, including females produced by estrogen treatment. Note the availability of albinos. These are the animals described in:

Bluemink and Hoperskaya, 1975. Ultrastructural evidence for the absence of premelanosomes in eggs of the albino mutant (a^D) of Xenopus laevis. Wilhelm Roux Archiv 177:75-79.

Hoperskaya, O.A., 1975. The development of animals homozygous for a mutation causing periodic albinism (a^D) in Xenopus laevis. J. of Embryol. & Exp. Morph. 34:253-264.

Hyperolius sp.

Representatives of the genus Hyperolius are available on occasion.

Ambystoma mexicanum (axolotl)

Because other sources do exist (see "Sources II"), their production here is on a limited basis and a price schedule is not presented, but inquiries are invited.

Tissues and products

Serum, tissues, and processed products from a variety of species can be provided if prior arrangements are made.

Boarding facilities

Boarding facilities for anurans and urodeles are available. This service may be most useful for long term experiments which do not involve interim treatments. Charges for special interim treatment of boarded animals are assessed according to the pay rate and time spent by technical or professional personnel.

Pathology and necropsy examinations

A pathology and necropsy evaluation service can be provided at cost. This service is provided in cooperation with the University of Michigan Unit for Laboratory Animal Medicine and the Pathology Department, and inquiry should be made in anticipation of possible need.

Information Control

Information from our data base can be provided at a charge of \$10.00 for the animals in each shipment. A description of the techniques used to identify the animals and of our computer-based information control system is found in Nace, Richards and Hazen, 1973, Amer. Zool. 13:115-137.

Research Space and Training in Amphibian Biology and Husbandry

Bench space can be made available to those on sabbatical leave and to those conducting research relevant to Amphibian Facility objectives. For others conducting short or long term experiemnts, space is available on a bench fee basis of \$10 per day.

One-day visitors are welcome. Those who desire special training in handling amphibians for experimental purposes or for learning amphibian husbandry will be charged \$50 per day for the first week and \$25 per day thereafter. A one-week training program is available for those interested in commercial amphibian production. Inquiry should precede commitment to such projects.

Food items

These materials can be supplied on an emergency and interim basis. However, we prefer not to render this service and prices are intentionally high. If you cannot find local supplies, we can suggest suppliers or provide instructions for raising your own (also see "Guidelines").

Housing

Although we do not market such items, our newly developed small animal housing unit, called MEESA, is described and sources are listed in "Sources II".

CLASSIFICATION OF ANIMALS

(Based on definitions in "Guidelines")

Wild-Caught Conditioned = in laboratory 2 or more months

Laboratory-Reared = progeny of wild-caught animals, reproduction in the laboratory (possibly exposed to parasite vectors)

Laboratory-Bred = progeny of laboratory-reared or -bred animals (not exposed to parasite vectors)

ORDERING PROCEDURES

1. Orders may be placed by telephone, by purchase order, or by letter. A purchase order number is required before shipment.
2. A clear description of what is requested and a brief description of the research for which the animals are to be used will aid us in filling your order or in suggesting alternatives if necessary. Note that this is distinct from our requirement for a report on animal use, which will be sent after the animals have been shipped.
3. Flexibility in delivery time is desirable.
4. Please note that some of the items described are in limited supply and many are not maintained "in stock". Other items are in the developmental stage and are not generally available to satisfy external demands. We urge that prior to placing orders, inquiry be made concerning availability and possible necessary lead times. If plans to use Amphibian Facility resources are included in grant applications, please inform us of this as soon as feasible.

SHIPPING

1. Shipments are sent on Mondays and Tuesdays to avoid weekend delivery.
2. Shipping containers are billed at cost.
3. Shipments are made via U.S. mail (Express or Priority), or by private air freight company.
4. Shipping costs are prepaid and added to your bill.

BILLING

1. The minimum order (including handling costs) is \$25.00.
2. Handling charges will be assessed for special requirements of the purchaser. For example, if more precise staging than that indicated in the Price List is requested, the time for such staging will be charged at the hourly rate of the technician.
3. Invoices are sent monthly.
4. A packing slip included with your order will indicate cost of animals, containers, and handling, but not mailing costs. Please do not remit payment until an invoice is received. This avoids separate billing for mailing costs which are not known at the time of packing.

LOSSES

1. Provided they are available, replacement animals will be sent as soon as possible if there are deaths during shipment. If unavailable, a suitable adjustment will be made in billing.
2. We must be notified immediately (on day of delivery) of dead or damaged animals.

PRICE LIST

Rana pipiensWild caught conditioned

<u>female</u> , adult, not gravid	\$ 5.00 each
" " gravid	7.00 each
<u>male</u> , adult	5.00 each

Lab-reared

prehatching stages	10.00 per 100
post hatching to SS 25	7.50 per 100
early larval (TK I-VI), limbbud obscure	10.00 per 50
mid larval (TK VIII-XIII), limbbud conspicuous	15.00 per 50
late larval (TK XIV-XVIII), limbbud elaborated	30.00 per 50
climax (TK XIX-XXV)	10.00 per 10

If the above stages are ordered at a season which requires
out of season (June-Sept) fertilization, the price is 150% of above

juvenile* 0 - 1 mo post-metamorphosis	\$ 2.00 each
" 2 " " "	3.20 each
" 6 " " "	5.60 each
" 12 " " "	9.20 each
female not gravid or male* 13 mo post-met	10.40 each
" " " " " 18 " " "	16.40 each
" " " " " 24 " " "	22.60 each

female gravid, add \$5.00 to price of non-gravid females

Lab-bred: 125% of lab-reared price

Tumor

Adult (warm): wild-caught conditioned	35.00 each
lab-reared	45.00 each
Adult (cold adapted): wild-caught conditioned	45.00 each
lab-reared	55.00 each

Leopard frogs, other species: Inquire.

* price based on boarding cost \$0.60/mo for 1st 12 months; \$1.20/mo thereafter

SS = Shumway stage; TK = Taylor-Kollros stage

Bombina orientalisWild-caught conditioned

adults (imported) \$ 16.00 each

Lab-reared

embryonic stages	10.00 per 10
larval stages	5.00 per 10
juveniles 0 - 3 mo post metamorphosis	6.00 each
4 - 9 mo " "	9.00 each
mature adults, untested	12.00 each
mature adults, tested (have yielded eggs or sperm)	16.00 each

Lab-bred

125% of price for lab-reared

Xenopus laevis (all laboratory bred)

embryonic stages	10.00 per 50
early-mid larval stages	15.00 per 50
late larval stages	10.00 per 10
juvenile 0 - 2 mo post met	2.00 each
3 - 5 mo post met	5.00 each
4 - 9 mo post met	7.00 each
mature adults, untested add \$1.20/mo e.g. 12 mo =	10.60 each
tested matured adults (have yielded eggs or sperm), add \$5.00	
albinos and sex reversed animals, add \$5.00 to price schedule for other <u>Xenopus</u>	

Other Species: Inquire.

Boarding

Large (<u>Bufo marinus</u> , bullfrogs, axolotls)	0.06/day/animal
Medium (<u>Rana pipiens</u> , <u>clamitans</u>)	0.04/day/animal
Juveniles (<u>R. pipiens</u> up to 12 mo of age and <u>Xenopus</u>)	0.02/day/animal

Crickets

8.00/1,000