LOVEBIRDS: Answers To Your Questions

The John Biggs book entitled "Lovebirds: Answers To Your Questions," is now available nationwide and sells for only $8 each plus $1 for shipping and handling (California residents add 6% sales tax). This informative book, complete with color photographs, makes for enjoyable reading as well as answering many of those troublesome questions. The book is based on the decades of experience John Biggs has had raising lovebirds and includes such topics as obtaining your birds, the importance of good nutrition, step-by-step illustrated instructions for banding lovebirds, breeding your birds, resting your birds, and the importance of cleaning and pest control. All this and more is discussed in this handy book, spiral bound for your convenience of reading.

Order your copy now from: J-P PUBLISHERS,
2349 First Ave., San Bernardino, CA
92405. (714) 867-2277. Books arrive UPS...

(714) 735-4017
bob & mary quick
breeders of:

ROSELLAS
SCARLET CHESTED
TURQUOSINES
BOURKES
LOVEBIRDS
PEACH FACE MUTATIONS
BLUE MASK
BLACK MASK
SILVER (WHITE) BLUE MASK

BIRDS AND AVIARY SUPPLIES
"we ship anywhere"
[714] 748-3847

* COCKATIELS · LOVEBIRDS · PARAKEETS ·
* ZEBRA FINCH · PLANT products · NEST BOXES
* CARRYING CASES · FEEDERS · PARROT CUPS
* PARROT STANDS · WROUGHT IRON

S. CLAUSE

Credit Cards Accepted
P.O. BOX 866,
Ranch, POWAY, CA. 92064
FOR CURRENT CATALOG/INFORMATION
SEND Self Addressed Stamped Envelope
QUANTITY DISCOUNTS ON ALL PRODUCTS

LOVEBIRDS: breeding the
Scarlet-headed Blackbird

by Larry Shelton
Curator of Birds
Philadelphia Zoological Garden

Of the 94 species of icterids, many have frequently been exhibited in zoos and some, such as the common troupial, have long been popular cage birds. However, probably less than 25 species have ever bred in captivity—and certainly none with any regularity. Three reasons for this paucity of captive breeding successes would seem to be: (1) the large quantities and varieties of live food necessary for fledging the young; (2) the difficulty in providing suitable nesting sites and the specialized nesting materials required by some species; and (3) in the case of colonial nesters, sufficient specimens to trigger breeding behavior and enough space to set up territories—a difficult condition in most captive circumstances.

The Philadelphia Zoo's experiences in 1978, 1979, and 1980 and early 1981 with the scarlet-headed blackbird (Ambyramphus holosericeus) demonstrate that, with careful management and manipulation, these circumstances can be overcome—even with a highly sociable acterid such as this species. The only member of its genus, the scarlet-headed blackbird is a splendidly handsome bird—both sexes are velvety black with scarlet head, breast and thighs. It is 9½ inches in length and has a stiletto-like beak. Found from southern Brazil to northern Argentina, this blackbird is an inhabitant of reedbeds and marshes. It wades along the water edges, opening its needle-like beak to explore waterlogged debris in its search for insects and other food. W.H. Hudson in Birds of La Plata (1920) has this description:

"...The birds are lively, active and sociable, going in flocks from half-a-dozen to thirty birds; they remain all year and inhabit the marshes, from which they seldom wander very far but seek their insect food in the soft decaying rushes. They are common on the swampy shores of the Plata, and when seen from a distance, perched in their usual manner on the summit of the tall rushes, their flame-colored heads shine with a strong glory above the sere, sombre vegetation....."

"The nest is an ingenious structure of dry grasses, fastened to the upright stems of an aquatic plant, three or four feet above the water. The eggs are four, in size and form like the English Song Thrush, spotted somewhat sparsely with black on a light blue background.

"The young birds are entirely black at first, and afterwards assume plumage. Its plumage will fade without an adequate nutrition. When the Philadelphia Zoo obtained two specimens from a Florida dealer in October 1978, the above quotation was essentially the only printed information about the bird's social behavior, natural diet and breeding habits available to us. After a period of quarantine, the "pair" was released into our Shore Bird Exhibit. The back of this exhibit (measuring 35' wide, 15' deep and 9' high) had been converted into a marsh-like habitat through much replanting. The blackbirds soon proved to be hell on wings when it came to the destruction of the more succulent plants. We had to content ourselves with bamboo and a reed-like palm as substitutes for real marsh plants.

The two birds threw on a diet of fruit, soaked Gaines dog meal, Zoocake (a nutritionally balanced food similar to commercial softbill mixes prepared by the Zoo's commissary), ground meat and small quantities of crickets and mealworms. The beautiful scarlet of the plumage will fade without an adequate amount of carotenoids in the diets. Since the birds readily drank our nectar formula, this proved to be the most effective means of providing the necessary carotenoids. The additive used in the nectar was Ambrosia Base, manufactured by Nutritional Research Associates. With the aid of the nectar, the birds faded only slightly from a captive moulting.

In March 1979, we obtained two more specimens which had been imported with our original birds. They had been returned to the Florida dealer because of their plant-destroying propensity. During their period of captivity, they ob-
Choice Golden Mealworms

The exact prescription for a healthier, happier, contented bird.

Rainbow Mealworms contain 12 of the 16 elements that are found in living tissue and rich in vitamins A and B. Natural vitamin A is essential to your bird's nutrition and growth. Vitamin B is required to maintain the nervous system.

Rainbow Mealworms are living food, clean and odorless. They should be kept under refrigeration at 40°F to 48°F (but not necessary). At this temperature they become dormant and maintain perfect condition for several months.

Rainbow Mealworms are graded in four sizes for your conveniences: SMALL, MEDIUM, LARGE, and MIXED. Each and every worm is fresh and lively. No need for sorting or sifting. We guarantee 10% or more overcount per measure.

Prompt shipment all year around. Instructions on care are enclosed with first order.

Mealworm bulk wholesale prices

<table>
<thead>
<tr>
<th>Count</th>
<th>1,000</th>
<th>5,000</th>
<th>10,000</th>
<th>20,000</th>
<th>40,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>50</td>
<td>$4.32</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>100</td>
<td>$6.60</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>500</td>
<td>$20.28</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

California Residents add 6% Sales Tax.

(213) 635-1494

Rainbow Mealworms

P.O. Box 4525
126 E. Spruce St.
Compton, Ca. 90220

The Freedom of Flight

Manufacturer of
Sur-Lock®
Animal Products

The Security of Steel

Quality welded wire for small birds . . . Heavy chain link for large birds

Built to last — Portable
Ready to assemble
Expandable
Indoor or outdoor

Environmental Enclosures feature quality materials and workmanship that guarantees customer satisfaction. Nationwide shipping.

We make it our business to know . . . We offer you the finest line of aviaries. Our products are especially designed with your needs in mind. The maximum in security and comfort.

Send for free brochure:

Environmental Enclosures, Inc.
DBA Sur-Lock Animal Products
621 Brea Canyon Rd., Walnut, Ca. 91789

(213) 965-4702
(714) 595-7559
the original female and a new male. Size did not prove to be a form of sexual dimorphism: the largest and smallest of the four birds were both females! A posture which frequently had been assumed by the four birds, regardless of sex, was an erect position at the top of a bamboo stem or a palm frond. Tail was slightly spread, shoulders raised and head lowered as if to display as much scarlet as possible. All this was accompanied by a whistling call. This posture was used for both recognition to a mate and territory identification to those birds with no pair bond to it.

In March 1980, both females frequently exhibited a submission posture. They would elevate their heads and tail and flutter their wings below their A fully colored adult.

A high potency multivitamin diet supplement for all cage birds. Regular use will ensure that all essential nutritional requirements during a bird's lifespan are fully met. Hagen Vitamin Supplement Conditioner contains among other ingredients VITAMIN A to promote health of plumage and skin. Also to aid resistance to disease. VITAMIN D & A promotes strong bone formation in young and nesting birds. VITAMIN D & A promotes quick molt and restoration of plumage. VITAMIN B is required for health and growth of the nervous systems. VITAMIN C is vitally required for resistance to infections and disease. VITAMIN E for mating birds and the prevention of infertility IRON to prevent anemia and increase the synthesis of hemoglobin.

The original females and a new male. Size did not prove to be a form of sexual dimorphism: the largest and smallest of the four birds were both females!

A posture which frequently had been assumed by the four birds, regardless of sex, was an erect position at the top of a bamboo stem or a palm frond. Tail was slightly spread, shoulders raised and head lowered as if to display as much scarlet as possible. All this was accompanied by a whistling call. This posture was used for both recognition to a mate and territory identification to those birds with no pair bond to it.

In March 1980, both females frequently exhibited a submission posture. They would elevate their heads and tail and flutter their wings below their
bodies. Despite the frequent observations of this behavior, actual copulation was never seen at any time.

By April 5, both females were trying to build nests in the same palm—the larger female had secured the more favorable site for a nest. Males exhibited no interest in actual nest-building activity, only interest in guarding nest sites. Both females (even the one with the better site) were having difficulty in constructing a nest with only bamboo leaves and twigs in the exhibit and the dried grasses we were also providing. Nest-building was at an impasse until the provision of Spanish moss and strips of pampas grass. The former material seemed essential to binding the nest together. The long strips of pampas grass were first soaked in water by the birds before being incorporated in the nest structure. The nest was approximately five feet above ground.

(The larger female had indeed become the Alpha or dominant female, and the smaller or Beta female had stopped nest-building in the palm by April 7. At the opposite end of the exhibit, branches with nest sites were stuck upright in bamboo in the hopes that she would attempt to nest there. However, she showed no interest in the new location.)

On April 10, nest-building seemed to have stopped. A check of the nest revealed a deep, well-constructed affair. The Spanish moss had been woven throughout the nest and had also been used to secure the whole nest to the palm fronds. A check of the nest on April 12 revealed no eggs, and minor work on the nest was continuing. A further check of the nest on April 16 showed it to have become even more massive. By April 20 the female was definitely incubating.

Just as the female had built the nest without the male’s assistance, she now did all the incubation of the eggs. The male assumed a guard/observation post at the top of the palm, rarely leaving except to chase other scarlet-headed blackbirds when they approached the nest site.

Not knowing the exact incubation period, we began to place large supplies of live food in the exhibit on May 2. The live food—mainly mealworms with lesser quantities of grubs (a large fly maggot commercially available from Grubco) and small crickets—was given at 8:00 AM, 10:30 AM, 1:00 PM, 3:00 PM and 4:45 PM. Liberal quantities of Vionate, a mineral/vitamin supplement for puppies manufactured by Squibb, were sprinkled over the insects. The live food was placed in an elevated feeder to pre-
vent the other exhibit inhabitants (except for a pair of Pekin robins and the other scarlet-headed blackbirds, mainly ground-dwelling marsh and shore birds) from immediately gobbling it up.

On May 5, the female was definitely feeding young and may have been feeding on the previous day. While the male had not contributed to nest-building or shared incubation duties, he carried food to the young in the nest, though not as frequently as the female did. The preferred food for the nestlings was mealworms with some grubs and fewer crickets. The adults carried food to the nest almost every 15 minutes at first and later about every half hour. Adults would carry out fecal sacs.

Parents frequently would take insects to the edge of the exhibit pool and dunk them in water as the birds battered the live food into more acceptable form for feeding. This undoubtedly is a natural behavior of these marsh-dwelling birds. Legs of crickets were always removed before feeding to the young.

On May 15, the exhibit pool was drained as a precautionary measure lest a fledgling should drown itself. By the morning of May 19, a young bird had fledged. The parents now engaged in murderous attacks on the other scarlet-headed blackbirds, which had to be removed from the exhibit.

Although there had probably been more than one egg, the single youngster was the only fledgling. (An attempt to check nest contents with a mirror early in the incubation period when the female was off the nest had caused such hysteria from the female that this check was aborted and no other was ever made.) From the point of fledging, the male fed the young bird more frequently than the female, and by May 21 the female was renovating the old nest with Spanish moss and was showing total disinterest in the young bird. The feedings by the male also did not seem adequate, and we consequently removed the young bird for hand-raising on May 22. The fledgling was fed 75% Gaines dog meal and red food for the nestlings was mealworms. The bird also drank nectar.

The young bird was a poor, in fact, a very poor edition of the adults—essentially a dull black bird with a brownish-gray throat and upper chest. The legs and beak were horn-colored; the eyes black.

On June 11, the adult blackbirds were again observed feeding young in the nest. The feeding pattern essentially followed that of the first nest, and at the end of the day on June 23 a single youngster had again left the nest. By June 24 the female, which was already renovating the nest, was ignoring the begging of the young bird but would still remove any fecal sacs from the youngster’s palm from perch. Again, the male’s feeding of the fledgling did not seem adequate. However, we decided to leave this second youngster in the exhibit and risk the consequence.

Although the young bird was observed probing the ground and water edge for food from July 4 on, the young bird was not actually seen feeding by itself until July 9, when it was seen to take mealworms from the elevated feeder.

An extreme heat wave caused the scarlet-headed blackbirds to desert the third and last nest of the season. Temperatures were rising well above 100°F in the Bird House. When nest desertion became apparent, we removed three eggs from the nest—two were totally light blue and the third had only a few brownish specks on the large end.

At five months both young birds began showing flecks of scarlet under the chin. (Our experience shows no transitional terra-cotta color on the head and breast.) At eleven months all scarlet coloring is still confined to the underparts, the crown, nape and thighs showing none of the bright color. The bird from the first nest turned out to be female, the one from the second a male.

At the time of writing (April 1981), the old breeding pair have eggs in a new nest in the same palm tree and have been incubating for one week. Although both young birds are still moulting into adult plumage, they have pair-bonded and the female has almost completed a nest in the branches which were provided for the Beta pair last year!

SUMMARY  Two pairs of scarlet-headed blackbirds in a medium-sized exhibit or aviary with a marsh-like environment can activate breeding in this social species. However, Beta pair may have to be removed later. Color feeding to retain scarlet plumage is also probably an added stimulus to breeding. Proper nest material is crucial to a successful nesting—plenty of Spanish moss and shredded pampas grass were viral to the Philadelphia Zoo’s successful nestings. Incubation and fledging periods are each 14 days. Mealworms with lesser quantities of grubs and small crickets—liberally sprinkled with Vionate—are adequate for successful captive rearing of the young. Live food must be supplied constantly. Female performs all nest-building and incubation chores. Inspection of nest after onset of incubation should be avoided, or desertion may result. Male guards the nest from a sentinel position. Male assists in feeding of young in nest and does most of the feeding once the young have fledged. Female in captive circumstances almost immediately starts new clutch. Although feeding of fledglings by male may appear to human observation to be inadequate, it probably is not necessary to remove young for hand-raising in such cases. In contradiction to literature (Hudson), the eggs seem to be frequently entirely light blue and the young birds (at least, in captive conditions) moult directly into scarlet plumage with no transitional terra-cotta stage. Although at eleven months the adult plumage is not totally assumed, young birds in captivity will breed at this stage.

AN APPRECIATION  The author offers special thanks to the following individuals for their assistance in helping to make possible the breeding of the scarlet-headed blackbird and in providing important data used in the preparation of this article: Ralph Horn, Assistant Curator of Birds, and Albert Woerner, Senior Bird Keeper, Philadelphia Zoological Garden; Shirley Busch, Peggy Chambers, Elizabeth McKee, and Dolly Purves, Docent Observers, Philadelphia Zoological Garden; Eileen Brandown, Philadelphia Zoological Garden, typing and proof reading of manuscript; Charles Cook, Disney World, and Ronald Young, Busch Gardens (Tampa), both of whom supplied Spanish moss for nesting material.


Delacour, Jean. 1936. Aviculture, Vol. I. Hertford, Stephen Austin and Sons Ltd.


**Dictionary of Ornithology**

*A word book for birders*

Professor Willard Holland

plus his humor and cartoons

---

**Feeder-Fount** $2.85 each

Made of high-impact plastic. 1/2 cup capacity. Feeds grams or granules as well as water. $2.85 each. 6 - $19.95. 12 - $19.00. Prepaid.

---

**No. 364 Midget Fount-Feeder** $2.85 each

For Your Very Special Needs--Credit Card Orders Accepted

- **LIV** - 40% Protein Food Concentrate [a Booster] ........................................ 2 lbs. $ 5.95
- **SQUIBB Vionate, Vitamin, Mineral Concentrate** ........................................ 2 lbs. $ 8.50
- **SUPER-PREEN--A Nutritional Tonic Feed Mix** ........................................ 250 grams $ 7.95
- **KEL-TONE, an Organic Concentrate [Dehydrated Kelp]** ............................... 11 Oz. $ 5.00
- **PETAMINE, the Wonder Food, a Supplement to your feed** ......................... 2 lbs. $ 3.85
- **Wood -- Parakeet Nesting Box--A very Popular Item** ................................ 75c Box $ 7.50
- **Plastic Canary Nests** ....................................................................................... dozen $11.95 to 2 dozen $19.95
- **Wire Canary Nests** ......................................................................................... $2.70 each. 6 - $13.50. 12 - $22.60
- **Willow Canary-Finch Nests** ........................................................................... $2.50 each. 6 - $12.75. 12 - $19.95
- **Numbered Canary, Parakeet Bandettes** ....................................................... 25 to $2.50. 50 to $4.50. 100 $ 8.00
- **Canary, Parakeet Dummy Nest Eggs** ............................................................. $2.00 each. 12 or more $ 4.00
- **Enclosed bird bath, attaches to your cage, easy to clean** ......................... 4.00 6 - $22.00
- **Musical Perch -- Entertaining both for birds and viewers** ...................... $9.95
- **Cast Aluminum Cage Cups, Parrots cannot chew to destroy $3.50** ............... 12 - $30.00
- **TRAINING RECORDS: Mynah Bird Phrases; Training Parakeet to Talk** ....... $5.00
- **Canary Records--No. 701 LaPaloma, Blue Danube Waltz** ......................... $2.50 each. 2 - $ 4.00
- **Ornacyin, Treatment for Respiratory Disease** ........................................... $ 2.00
- **AviMycin Tablets, an Antibiotic -- for many bird ailments** ....................... $ 2.25
- **Aureomycin - Also available Terramycin** ..................................................... $ 4.95
- **Lambert Kay AVITRON, [Liquid] Essential Vitamin Supplement. one ounce.** $ 3.25
- **Feather-Glo, cleans, invigorates, beautifies** ............................................. $ 2.50
- **No Mite Spray, makes it easy to control mites** .......................................... $ 2.95
- **Scalex, treats Scales and Mites in all Cage Birds.** ...................................... $2.00. 4 Oz. $ 7.00
- **Wheat Germ Oil** ............................................................................................ 4 Oz. $ 2.25
- **Drop A Day Vitamins** .................................................................................... $ 2.00
- **Kwick-Stop Styptic Powder** ........................................................................... stops bleeding $ 2.95
- **Linatone--A Supplement to Aid Feathering. one ounce.** ......................... $ 2.50

*Small orders $2.00 minimum handling-shipping. More to cover shipping on large order except prepaid.*

$ 14.00 Dozen Prepaid

With an ordinary pop bottle you have a handy fountain. Ideal for small groups. Rabbits, Guinea Pigs, Parrots, Cage Birds cannot chew to destroy them. Held to the outside of your cage by a holding spring, it projects inside most convenient. Measures 2" x 1").

**Cage Bird Tube Drinker-Feeder**

No. 21 Double Breeding Cage

$24.25. 3 - $58.95 Prepaid.

No. 25 Single Breeding Cage

$18.25. 6 - $84.25 Prepaid

---

**Stromberg's Chicks & Pets Unlimited**

Pine River, Minn. 56474