INTRODUCTION

The Lord Howe Island woodhen *Tricholomus sylvestris* is an endangered flightless rail (family rallidae) endemic to the tiny southwest Pacific Island of the same name. This paper reports on an avicultural programme which recently commenced on the Island to provide captive-bred stock for rehabilitation of the species in the wild.

Lord Howe Island lies approximately 800km northeast of Sydney, New South Wales, Australia. The nearest land is the coastline of the Australian mainland, some 600km away. The island is small (9km long by 2km wide) and mountainous, and for the most part covered in sub-tropical rainforest. Mounts Lidgbird and Gower dominate the landscape, and the 20 hectare plateau summit of the latter (altitude 866m) was the woodhen's last stronghold. The lowlands of the island are inhabited by some 250 people, many of whom are the direct descendants of the first settlers of 1833.

Previous ecological studies of the woodhen had shown the woodhen to be one of the world's rarest birds, with a total population in the wild of some 30 individuals (Disney 1974, Fullagar and Disney 1975, Miller and Kingston 1980). During May 1980 only fifteen individuals could be found. It has been ranked by the IUCN as an endangered species on its highest priority list (endangered genera and higher taxa). In mid-1980, an avicultural programme was embarked upon to assist with the conservation of the species on the island. I was appointed aviculturist and after the first season wish to report on progress to date, with details of methods employed and aspects of the bird's breeding biology not previously reported.

DESCRIPTION AND HABITS

The woodhen's general colour is olive-brown, and wing feathers are chestnut coloured with black bars although this is not seen until the birds spread their wings. The bill is approximately 50mm long, slightly down curved and pinkish-grey in colour. The oldest birds sometimes have white ear coverts and occasionally, a grey nape. The iris in adults is bright red. The bantam-sized woodhen have been observed to jump vertically up to 12 feet when defending their territory assaulting the intruder mercilessly.

The woodhen's territorial call is high-pitched. Both birds of a territorial pair combine together in their challenging duet. Established pairs maintain a low 'bonking' contact call. Woodhen chicks, while growing, emit an incessant 'peeping.'

Although the birds spend most of their lives digging and scratching for insects and other invertebrate foods, they have never been observed scratching with their feet as do parrots, or holding food items with their feet as do parrots. While scratching amongst the forest litter for invertebrates, they can move objects using the bill such as logs etc., equal to their own weight.

FIG. 1

Regarded as flightless, in captivity woodhens have been observed to jump vertically up to 1½ metres entirely with the power in their legs and to skim the ground horizontally for 3½ metres with their wings flapping and their legs dangling behind.

In 1837, woodhens were reported to be still common, but only sixteen years later were scarce and restricted in distribution due to the efforts of the first settlers who
arrived in 1833 and hunted birds for food.

Continuing human predation, coupled with the impact of introduced pigs, goats, cats and owls reduced the woodhen population still further. Woodhens were still regularly on the menu seventy years ago. Accounts from the island's senior citizens describe how at the turn of the century they, as children, used to knock stones or sticks together, as the banging would attract the birds. Once the birds were close, they would hit them on the head.

Some woodhens still persisted on the lowlands until the 1940's, but since then, there have been few reports below the summit and upper slopes of Mount Gower.

Control/eradication programmes on introduced predators and competitors have been undertaken in recent years in a bid to help the woodhen population. Pigs have been almost exterminated and the other animal populations greatly thinned. It is against this background of habitat rehabilitation that the captive propagation/release programme for the woodhen is being undertaken.

INVESTIGATIONS—PAST AND PRESENT

In 1969, Mr. H.J. de S. Disney, the then Curator of Birds at the Australian Museum began studies on the woodhen. Dr. P. Fullagar of the C.S.I.R.O. joined him in 1971 and results of their researches revealed that there were less than thirty woodhens on Mount Gower and possibly a few on Mount Lidgbird.

Their observations revealed that adults paired for life and, on the summit, each pair defended a territory of approximately 2 or 3 hectares. The population size remained almost constant; the number of young birds hatched and surviving each season was about equal to the number of adult deaths. Juvenile birds were forced out of the parents' territories during the winter months. All birds were caught and banded with aluminum serial numbered bands and, for easy identification, a unique sequence of coloured bands on the other leg e.g. yellow-red-green so that data sheets would be headed with the colour band sequence, followed by details. Many birds were banded as juveniles in their family groups, but were never seen again. It was surmised that these birds perished due to lack of suitable habitat.

In 1978, Dr. Ben Miller of the New South Wales National Parks and Wildlife Service spent two years on Lord Howe Island to make a full investigation into the problems limiting the woodhen population and what might be done to help increase what still remained. He concluded that feral pigs were preventing the woodhen population descending from its mountaintop refuge, which was protected by a low cliffline and hence inaccessible to the pigs. Only this accident of topography had saved the woodhen population from extinction. Based on these findings, a pig eradication programme was commenced in 1979, and almost 200 pigs have been removed from the forests, with only one or two thought to remain. Miller and Dr. Tim Kingston of the Australian Museum (1980) examined a number of alternative sites on the island, with the view to re-establishment of additional woodhen populations and found that the food resource was adequate in most places. At one site, Little Slope, the food resource was extremely rich, and with an absence of pigs, goats and cats, there was no reason why restocking would not result in the foundation of a substantial wild population. Many areas of the native forest started to regenerate with strategies primarily addressed to woodhens.

THE BREEDING PROGRAMME

Costs and Source of Funds

Before an attempt could be made to propagate the woodhen, long-term financial backing was sought from the National Parks and Wildlife Foundation which operates as a fund-raising trust by public and business donations for many wildlife projects in New South Wales. The National Parks and Wildlife Service undertook administration responsibilities and the Lord Howe Island Board (which is responsible for the administration of the island) assisted with rent subsidies and construction of facilities, use of vehicles and manpower, etc. As many of the administrating costs of the Service and the Board are hidden, the real final cost will be somewhat higher than the estimate provided below.

<table>
<thead>
<tr>
<th>Investigative Study (2 years)</th>
<th>62,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 year Breeding Programme</td>
<td>200,000</td>
</tr>
</tbody>
</table>

Site and Construction

The breeding complex was built on a specially selected reserve on the lowlands of the island in near-natural habitat of Banyan Fig (Ficus columnaris), Kentia Palm (Howea forsterana) and Blackbutt Cryptocarya tricolor forest.

Construction of the 0.5 hectare breeding centre was completed in May 1980. The breeding aviaries are protected by a perimeter fence 225cm high comprising overlapping palings 200cm which supports an outward sloping tin guard of 25cm from which suspends...
One of these domestic-raised, tame, affectionate, beautiful, intelligent babies can be yours.

HAND-FEEDING NOW

Gail J. Worth
2808 OREGON COURT,
UNIT L-8
TORRANCE, CA 90503
(213) 541-1180
three strands of electric wiring to discourage animals climbing over the top from outside. To prevent animals burrowing under, a 45cm tin strip sits under the palings. This has proved an adequate protection against disturbance from cats, dogs, and humans.

The initial concept of large open-topped enclosures proved unsatisfactory as, on the first night in it's breeding enclosures, a male woodhen was killed by a Tasmanian masked barn owl (Tyto novaehollandiae). This owl species had been introduced to the island in the 1920's in an effort to help control the increasing rat population. To eliminate further loss to owls, each aviary followed a basic format having galvanized iron or netted 150cm high sides with a flat or pitched roof, depending on location in an effort to minimize damage to trees. Solid galvanized iron sides face the other aviaries to reduce visual and some audible disturbances. The surface area of each aviary was approximately 100 square metres. The aviary adjoining the Service building (see Diagram) is fitted with a glass viewing strip which enables the public to view juvenile/non-breeding birds with minimal disturbance to them.

The Service building is divided into two rooms: one for preparing food also serving as an office area. An air conditioned maintains constant temperature of the Incubator/brooder room which is fitted with two incubators:
—The Domex ‘forced draft’; and
—The Onslow ‘still air’.

Refer to Figure 2 for general layout of aviaries and building.

**Figure 2**

**Internal Layout of Woodhen Compound**

Breeding aviaries

Holding aviaries

Incubator/Brooder room

Office/Service building

Viewing area

**Aviculture**

Aviculture’s first knowledge of woodhens were during the 1830’s. The following extract is from a letter to the Secretary of the Zoological Society of London by Dr. George Bennett F.Z.S. dated Sydney, June 15, 1969:

‘... I recollect that in the year 1836 or 1837 the late Alexander Macleay, then Colonial Secretary of N.S.W., had several of these birds alive, which had been brought to him from Lord Howe’s Island; and he at that time expressed an intention of sending them to the Linnean and Zoological Societies, but I am not aware whether they ever reached their destination. ...’

The Zoological Society received a living specimen, however, no details of avicultural value are recorded. Nevertheless, the Zoological Society also received a live specimen of the New Caledonian woodhen (Trichlomma lafresnayanus) (Verteaux and Des Murs), the only other member of the genus and now considered extinct, as shown by the following quote from the ‘Proceedings of the Scientific Meetings of the Zoological Society of London”—June 24, 1869:

‘... A New Caledonian Rail (Ocydromus lafresnayanus), presented to the Society by Dr. George Bennett, F.Z.S., of Sydney, and received, by the ‘Parramatta’ on the 10th inst. This very interesting bird, which had been sent to Dr. Bennett from New Caledonia, was little known in European collections, and had never previously been received alive. It was allied to the Weka Rail (Ocydromus novae-zeelandiae, but quite distinct specifically, if not generically. A more extended notice of this remarkable bird would be given whenever it died and so afforded the means of making a thorough examination of it. This it was impossible to effect while the bird was living ...’

In 1872, Bennett (in aviaries in Sydney) kept Lord Howe Island woodhen with the New Zealand Weka (Gallirallus australis) and the New Caledonian woodhen. He said that they were all excellent rat catchers. Regrettably, he made no mention of diets or aviary design.

I am not aware of any further attempts to introduce into captivity any member of the genus since these references of last century. Rails have seldom been held or maintained in captivity. However, the New Zealand Wildlife Service operates a breeding centre—The Mount Bruce Native Bird Reserve—for the captive propagation and reintroduction of New Zealand’s endangered birdlife. For six and a half years, I was employed by the New Zealand Wildlife Service as an aviculturist during which time six species

**First time ever! Aviculturist’s Calendar for 1983**

AFA’s new 1983 calendar features outstanding color photographs of birds favored the world over by breeders and pet lovers: budgies, finches, lovebirds, cockatiels, parrots, cockatoos, canaries, and more... each photo has an educational caption. The fascinating history of AFA—the only aviculturist organization of its kind, is told on the inside back cover by 1981-82 vice-president Lee Phillips.

Large squares for each day give ample room to note hatching dates, bird club meetings, etc. Calendar opens up to 11” x 22”.

**A fine gift for any bird lover!**

mid-year reduced price

$4.00 each, including postage and handling. (California residents add 6% tax)
overseas orders add $3.50 additional postage.

ORDER NOW!

make checks payable to:

American Federation of Aviculture
P.O. Box 1568, Redondo Beach, CA 90278
(213) 372-2988
of rail were bred.

With this background, I was seconded from the New Zealand Wildlife Service in late 1979 at the invitation of the New South Wales National Parks and Wildlife Service. My capacity as aviculturist was to oversee the captive management of the breeding programme.

CAPTURE AND TRANSPORTATION

In the weeks prior to the capture, only four wild breeding pairs could be found making it imperative that losses were not sustained during capture and transportation. Transfer of birds from the wild to the breeding facilities was carried out over two days in May 1980. Three pairs had previously been selected as desired foundation stock; each had produced offspring in the wild during the previous season and, hence, known to be fertile.

Territorial woodhens were known to challenge other woodhens in their territory. Birds were located and attracted by replay of a territorial woodhen call. Once the birds have been located, they are normally interested in finding the vocal intruder giving the capture-party time to erect a mist net along the ground so that the birds can be driven into the net.

At capture the birds were weighed to give a guide of initial condition and placed in acoustically shielded shock-proofed carrying crates. Transport was by helicopter to reduce confinement time from 4-6 hours by backpack, to 10-15 minutes. All birds arrived safely at the breeding centre. See appendix for measurements.

CAPTIVE CONDITIONING

Arrival coops were made of hessian walls about 180cm square with roofs of netting. The functions of arrival coops are:

- The birds have a small, clearly-defined area and settle more readily;
- Being in a small area, they are easier to observe (e.g. to see if they are accepting artificial food);
- Capture for regular monitoring of weight is less stressful;
- The hessian walls prevent the birds from injuring themselves until they become accustomed to the concept of an impenetrable barrier.

The woodhens captured represented three of the four known breeding pairs. All birds showed various amounts of stress and, as expected, all birds' weights dropped during captive conditioning. I have found that younger birds settle and accept captivity more readily than older birds and this was also the case with woodhens.

The 'Summit' pair were the only birds
Carlson's Spray Millet comes in Regular and Premium Lengths.

Distributing quality wrought iron bird cages.

<table>
<thead>
<tr>
<th>Cartons</th>
<th>lbs</th>
<th>Regular 8&quot; to 10&quot; Sprays</th>
<th>Premium 10&quot; and Longer Sprays</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>5</td>
<td>$15.00</td>
<td>$18.00</td>
</tr>
<tr>
<td>2</td>
<td>10</td>
<td>$24.00</td>
<td>$30.00</td>
</tr>
<tr>
<td>4</td>
<td>20</td>
<td>$46.00</td>
<td>$55.00</td>
</tr>
</tbody>
</table>

Postage is paid in Continental USA. Inquire for quantity prices.

We sell only fat and healthy birds - Guaranteed!!

All birds can be shipped anywhere in the U.S., and can be surgically sexed. We operate a U.S.D.A. quarantine station.

Quantity prices are available on Macaws, Cockatoos, Amazons, Finches and Softbills.

SPECIAL: tame baby Grey-cheeked parakeets

Get on our Mailing List!

Parrot Paradise - 26530 Harper St.Cl.Sh., Mich. 48081 - (313) 776-3551

Three Facts You Want to Know About Carlson Spray Millet

1. More people buy Spray Millet from Carlson's than from any grower in the country. People like our freshness and quality. They expect each hand-picked millet spray from Carlson's to be as clean and nutritious as nature intended.

2. Carlson's Millet is Pesticide Free! Unlike imported millets which are thoroughly fumigated with chemical pesticides, Carlson's is pesticide free and completely safe for even the smallest, most delicate birds.

3. Carlson's Spray Millet comes in Regular and Premium Lengths.

We have observed that white ear-coverts appear at the age of seven years. The 'Old Pair's' exact age was unknown, however, the male had these white coverts suggesting that it was an old bird. This can be considered a major factor in the pair's reluctance to settle and accept artificial food. During the first four days in captivity, both birds sustained a 15% loss of their capture weights. The male dropped from 540 gms to 460 gms and the female from 410 gms to 350 gms. Force feeding, three times daily, in the arrival coop for the next six days failed to induce the birds to forage for themselves so, at Day 10, they were brought indoors into the service room. By this time, the most advanced (Summit) pair had begun calling and this placed an additional stress on the Old pair, who were still losing condition. Inside the Service room, the Old pair were housed in a coop of solid sides (dimensions 150 cm x 75 cm x 58 cm) with a netting top to prevent them escaping. Weight loss by this time was 17% for the male and 20% for the female.

By Day 4 in the service room, both birds were observed tentatively pecking at the feed trays and their weights began to stabilize. At this time, force feeding was reduced to once daily. Weights remained stable until Day 10 when the male fell a further 20 gms (120 from capture weight) and the female 10 gms (70 from capture weight). This further decline in body condition, a combination of boredom and stress from limited confinement in their coop indicated the appropriate time had come for release in-
to their permanent aviary. The body weights then increased markedly and within two weeks, both birds had passed their capture weights—male +5 gms of capture weight and the female +25 gms.

Following the initial capture, two other young unpaired males were brought into captivity as possible mates for the widowed female. Both birds settled readily and posed no problems in captive conditioning. After several unsuccessful attempts at pairing, the first male was released. However, the second male readily paired with the widowed female.

DIETS AND FEEDING REGIMES

Formulation of a suitable diet for the birds was made from the following ingredients:

- poultry layer pellets;
- 'Whiskettes' cat food (a high protein feed from a variety of fish and meats in dry, biscuit form);
- matured cheddar cheese (grated);
- cottage cheese;
- madiera cake;
- an occasional complete raw egg;
- laboratory-bred, new-born mice (Mus musculus);
- mealworms (Tenebrio molitor);
- woodgrubs (family Cerambycidae); and
- other invertebrates.

All birds were regularly weighed and diet quantities increased or decreased until birds maintained the required weights, which are approximately 50 grams heavier than capture, as the birds were caught in early winter in trim condition. The amounts of food consumed by individual birds is known to vary considerably from season to season (i.e. winter or breeding season). Woodhens were found to have a tendency to overeat during the non-breeding season therefore, I ceased feeding them raw eggs, wood grubs and cottage cheese. Cheddar cheese is given in a reduced quantity. Madiera cake and steak strips were subsequently eliminated as they nutritionally duplicated cheaper and more readily accessible food items.

Poultry pellets; grated cheese; 'Whiskettes' (blended to a powder and soaked in water to form a paste); and, mealworms are the daily basic diet and approximate amounts per adult bird were:

- Non-breeding season:
  - poultry pellets 5 gms;
  - grated cheese 5 gms;
  - mealworms 5 gms; and
  - 'Whiskettes' 20 gms.

- Breeding season:
  - poultry pellets 5 gms;
TODAY'S ADVANCED THERAPY UNIT BRINGS A NEW CONCEPT OF AVIAN MEDICINE TO BEGINNING AND EXPERIENCED BIRD PRACTITIONERS

THERAPY UNIT PLUS
17" x 18" x 12"

NEW QUALITY CAGES
- MADE WITH TOUGH NYLON MOLDED CORNERS. 15/16 SQ. 040 WALL ALUMINUM TUBING. 1/2x2 16 GA. G.B.W. GALVINIZED BEFORE WELDED WIRE. 28 GA. GALVINIZED SHEET METAL TRAYS.
- SHIPPED BY U.P.S.
- FRAMES CAN BE ORDERED READY TO ASSEMBLE

COPYRIGHT © 1981 CORNERS LTD. PATENT PENDING

JOE EMGE
1552 E. CONCORD, ORANGE, CA 92667
(714) 637-5636

NO BIRDS ON THE PREMISES. CALL FOR APPOINTMENT.

SUBSIDIARY OF BIRDS & RESEARCH
BUY SELL TRADE
Toucans • Amazons • Hawk headed parrots
Chilean flamingos • African crown cranes
Grass parakeets
Cockatoos • Macaws
Medium Sulphur, Triton Specials - Hyacinths, Scarlets

If you don't see your preference listed, give us a call — many other birds available.
Write or call for up-to-date bird and price list, and monthly specials.
Breeding age adults and babies available.
Consultations on breeding, and building aviaries.

J tone ELME
1552 E. CONCORD, ORANGE, CA 92667
(714) 637-5636

NO BIRDS ON THE PREMISES. CALL FOR APPOINTMENT.

A better way ... to cage your birds indoors and out.

SINGLE CAGE
36½" x 31½" x 31½" or 24½"

DOUBLE CAGE
78" x 31½" x 31½" or 24½"

PARROT CAGE

BIRD SCALE

THERAPY UNIT PLUS*
17" x 18" x 12"
TODAY'S ADVANCED THERAPY UNIT BRINGS A NEW CONCEPT OF AVIAN MEDICINE TO BEGINNING AND EXPERIENCED BIRD PRACTITIONERS

NEW QUALITY CAGES
- MADE WITH TOUGH NYLON MOLDED CORNERS. 15/16 SQ. 040 WALL ALUMINUM TUBING. 1/2x2 16 GA. G.B.W. GALVINIZED BEFORE WELDED WIRE. 28 GA. GALVINIZED SHEET METAL TRAYS.
- SHIPPED BY U.P.S.
* FRAMES CAN BE ORDERED READY TO ASSEMBLE

COPYRIGHT © 1981 CORNERS LTD. PATENT PENDING
and sometimes standing); the male mounts and, balancing, makes cloacal contact with wings fluttering then dismounts. Both birds stand side-by-side or face-to-face while the male gives a low ‘boobk’ call. Sometimes, this is followed by mutual preening or resumption of nest-building. Copulation itself takes approximately fifteen seconds.

In the wild, woodhen nests have been found in thick clumps of fern, under a fallen log, or down a burrow—somewhere that is quite dark and sheltered. To try to duplicate this in the aviary, triangular nest boxes (350mm x 400mm) with solid backs were provided in the aviaries and to enhance their natural appearance they were covered with rotting logs, palm fronds, etc.

THE NEST
A typical woodhen nest bowl is 100mm-120mm in diameter, approximately 25mm deep and lined with fine, dry leaf litter. The bird tends to fill the whole box with nesting material. The base of the nest bowl is usually 75mm above the ground. Both birds bring nesting material to the site. I have observed both sexes participate in nest building. Several trial nests are also built.

The ‘Old’ pair tended to reject artificial sites and use more natural ones, such as under a pile of palm fronds. The birds were left to incubate their own eggs for the first fourteen days then the eggs were collected and artificially incubated for the last six days before hatching. After collection of eggs from the nest, renesting occurred in approximately fourteen days. The parent birds renested up to seven times in the six-month breeding season.

EGGS
Woodhen eggs are dull white with minute dots and large irregular shaped markings of light chestnut red and faint, steel-grey blue more or less scattered over the surface of the shell predominating towards the larger end. The average size of thirty-three eggs is 46.9mm x 33.4mm and approximately 28.7gms fresh, about the size of a bantum egg. Clutches range from 1-4, with eggs laid on alternate days; some evidence exists of daily laying in some cases.

The third pair had the poorest fertility which was considered to be unacceptably low for our purposes. Three possible reasons for this are:
(i) The male was introduced after the commencement of the breeding season;
(ii) The male was only one year old;
(iii) The male rapidly became obese gaining 70% of his capture weight during the season.

INCUBATION
Natural incubation normally began with laying of the last egg. Both male and female birds share this duty and generally, the pair take a few days to settle into a regular time pattern of approximately two hour intervals. It is not known which of the pair incubates at night, however, woodhens are crepuscular and may, in fact, continue to incubate alternately through the night.

Satisfactory hatchings are achieved from fourteen days in both types of incubator. The eggs are placed on their sides and they are rolled alternately every six hours with relative humidity around 70% and air temperature of 99.5°F. Once pipped, the humidity is raised to maximum. It must be stressed that these hatchings are from eggs removed from fourteen days of natural incubation and full-term incubation has not yet been achieved. Incubation in captivity is twenty days (14 natural, 6 artificial).

CHICKS’ GROWTH AND DEVELOPMENT
The first chick hatched on August 19, 1980, ninety-two days after capture of the parents. The parents were the troublesome Old Pair. Eggs laid by the second pair at the same time died as full.
INVENTORY REDUCTION SALE

QUALITY IS ALWAYS IN DEMAND

The below listed stock is either fully acclimated or domestically bred and has been maintained under the constant supervision of our staff veterinarian. They include proven breeders, egg laying, pairs, mature surgically sexed stock as well as our own 1982 hatch selections. There is NO QUARANTINE RISK.

<table>
<thead>
<tr>
<th>PARAKEETS, ROSELLAS (Pairs only)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Adelaide Rosella (P)</td>
<td>Red Rump Normal/Yellow (E)</td>
</tr>
<tr>
<td>Adelaide Rosella (E)</td>
<td>Yellow Vented Blue Bonnet (M)</td>
</tr>
<tr>
<td>Blue Mealy (P)</td>
<td>28's (M)</td>
</tr>
<tr>
<td>Blue Mealy (E)</td>
<td>Barnard (M)</td>
</tr>
<tr>
<td>Stanley (P)</td>
<td>Barnard (E)</td>
</tr>
<tr>
<td>*Turquoise (E)</td>
<td>Crimson-wing (M)</td>
</tr>
<tr>
<td>Many-colored (P)</td>
<td>Rock Pebble (M)</td>
</tr>
<tr>
<td>Red Rump Normal/Normal (P)</td>
<td>M = mature  E = egg-laying</td>
</tr>
<tr>
<td>Red Rump Normal/Yellow (P)</td>
<td>P = producers</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PARAKEETS, ROSELLAS (Singles only)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Adelaide Rosella</td>
<td>Many-colored</td>
</tr>
<tr>
<td>Stanley Rosella</td>
<td>Red Rump (Yellow)</td>
</tr>
<tr>
<td>*Scarlet-chested</td>
<td>Barraband</td>
</tr>
<tr>
<td>*Turquoise</td>
<td>Rock Pebble</td>
</tr>
<tr>
<td>*Endangered species permit required</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FINCHES</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Lady Gouldians (Red, Black, Yellow-head)</td>
<td>Pectorella</td>
</tr>
<tr>
<td>1-3 pair</td>
<td>Pectorella, Male only</td>
</tr>
<tr>
<td>Lady Gouldians, Whitebreasted</td>
<td>Owl (Bichenos) 1-5 pr.</td>
</tr>
<tr>
<td>Lady Gouldians, Whitebreasted Splits</td>
<td>Owl (Bichenos) 6-11 pr.</td>
</tr>
<tr>
<td></td>
<td>Owl (Bichenos) 12 pr.</td>
</tr>
<tr>
<td></td>
<td>Owl (Bichenos) 24 pr.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ADDITIONAL STOCK</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Triton Cockatoo</td>
<td>Moluccan Cockatoos</td>
</tr>
<tr>
<td>Moluccan Cockatoo</td>
<td>Harlequin Macaw</td>
</tr>
<tr>
<td></td>
<td>Scarlet Macaws</td>
</tr>
</tbody>
</table>

<p>| |</p>
<table>
<thead>
<tr>
<th></th>
</tr>
</thead>
</table>

Call or send for price list today!

SUPER PRICES – SUPER QUALITY

Box charges are in proportion to size of order, and billed at cost! All orders shipped C.O.D., Cashiers Check, or Bank Transfer; NO COMPANY CHECKS. Shipping F.O.B. Los Angeles International Airport.

(213) 760-1877 California

(201) 851-0155 New Jersey
HUDSON VALLEY AVIARIES
Specialty Breeders of Rare Cockatoos

*1983 Breeding Inventory:
- White-tailed Black Cockatoos
  (Calyptrorhynchus funereus baudinii)
- Slender-billed Cockatoos
  (Cacatua tenuirostris)
- Greater Sulphur-crested Cockatoos
  (C. galerita galerita)
- Rose-breasted Cockatoos

We are not importers! All birds we offer are aviary-bred, and are hand-raised from hatching to insure the healthiest, tamest, and highest quality pet or collector’s item available. Perfect health, excellent feather condition, and affectionate dispositions are guaranteed with every bird. Call or write for more information.

*Availability of larger species is seasonal and very limited. All birds are committed on a first come-first serve basis.

Serious inquiries should be made as soon as possible to confirm your placement on our breeding lists for 1983 offspring.

3 Ann Street • New Paltz, N.Y. 12561 • (914) 255-1445
American Federation of Aviculture  
(EXCLUSIVE FOR MEMBERS)

Insurance for Birds At Group Rates

The American Federation for Aviculture has put together a comprehensive insurance program that protects its insured members from loss as a direct result of the following perils:

1) Fire, Lightning, Explosion, Smoke, and Artificial Electricity
2) Windstorm, Cyclone, Tornado and Hail
3) Accidental Shooting (except by the Insured or Employee)
4) Earthquake, Flood, Drowning, and Collapse
5) Attack by Dogs, Cats, or Wild Animals not owned by Named Insured or Employees
6) Theft, Vandalism and Malicious Mischief

All Perils are subject to a $100 deductible.

The annual rates are:
$2.00 per $100 of coverage for first $10,000
$1.50 per $100 of coverage for excess of $10,000
Subject to a $25.00 minimum.

Extensions of Coverages:

1) Transit up to $5,000 coverage on birds while in transit
2) Newly hatched birds are automatically covered for thirty (30) days up to 50% of their parents' value
3) In the event a parent dies due to an insured peril which causes the offspring's death, the Company will pay up to 50% of the parent's value

The complete terms of the insurance coverage are set forth in the Group Insurance Policies issued by the Insurance Company. Each individual who becomes insured will receive a certificate outlining the benefits. While this explanatory material describes the group insurance, it is not to be considered a contract.

Royal Insurance

George L. Brown, Insurance Agency
30131 Town Center Drive, Suite 275
Laguna Niguel, CA 92677

APPLICATION ON REVERSE SIDE
American Federation of Aviculture
APPLICATION

Application (coverage is not in effect until application is received by Company or its Authorized Representative).

Name of Applicant: ________________________________

Mailing Address: ___________________________________________ Zip: __________________

Phone: ____________________________________________

Location of Birds (if different from mailing address): ________________________________

If value for species is higher than normal because of markings, training or breeding, the insurance company must have appraisal to substantiate values.

1) Are you involved with birds?
   □ Personal Pets/Breeding Hobby
   □ Financially Substantial Breeding Hobby
   □ Commercial

2) Are premises occupied day and night where birds are located?
   □ Yes
   □ No

3) If no, explain _____________________________________________

4) Do you transport birds regularly?
   □ Yes
   □ No

5) If yes, explain _____________________________________________

6) Have you had any losses in the past three years (whether covered by insurance or not)?
   □ Yes
   □ No

7) If yes, explain _____________________________________________

8) Describe type of aviary and/or cage construction, location and general security: ________________________________

Bird descriptions and values. List all birds valued at $300 or more.

INDIVIDUAL & APPRAISED BIRDS

<table>
<thead>
<tr>
<th>Species</th>
<th>Name or ID #</th>
<th>Sex if known</th>
<th>Description (color, character, talent, etc.)</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

GROUPS OR COLONIES

<table>
<thead>
<tr>
<th>Species</th>
<th>Description (color, normal, mutation, etc.)</th>
<th>Individual Value</th>
<th>Max $300</th>
<th>Total Group Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

MAIL TO: George L. Brown, Insurance Agency, 30131 Town Center Drive, Suite 275, Laguna Niguel, CA 92677
term embryos (i.e. failed to hatch).

Newly hatched chicks are sooty black with dark irises and legs; the only speck of white is the egg-tooth. They are initially kept warm in the heated brooder-room with a light bulb and hiding places made of fibre tunnels or small cardboard boxes. A chick grows quickly. For the first two weeks of life, the chicks are fed hourly by tweezers on their natural food of grubs, worms and arthropods collected from natural forest litter. The chicks began drinking water at four days of age.

Artificial food was provided from six days and the chicks are encouraged to start feeding themselves from this time. To try to provide enough grubs for a growing chick at this stage was almost impossible due to their insatiable appetites. With the growing interest after the first hatching, the Lord Howe Islanders came to the rescue by raiding their gardens for insects.

Although after only one breeding season our data are incomplete, the following average growth information is established and is not segregated into sexes, however as a general rule, maximum size are males while the smallest tend to be females.

Sexing woodhens by measurement was not possible at hatching, however, by twelve days, the males had generally gained slightly more weight and more length in the tarsus (leg). The single most important sexing feature is the culmen (bill) which is the last characteristic to grow, but sex could usually be determined successfully before this time by general body size and behavioural traits, males becoming aggressive.

The majority of the thirteen hand-raised woodhen chicks’ tarsuses were shorter than the wild bird average. Next season, the chicks will be fed a larger quantity of earthworms during the first fourteen days—the period of greatest growth—in an effort to increase tarsus length.

**REMARKS**

**Day**

0 Hatching. Average 20 gms (Maximum 21.5 gms and Minimum 17 gms).

1 Average loss during the first day was 1.2 gms (Maximum 2.9 gms and minimum 0.3 gms) due to reabsorption of the yoke sack, desiccation and first defaecation in the absence of external food or water. Hourly feeding by tweezers is initiated from 6am to 10pm daily of invertebrates (mainly amphipods and isopods) and earth-
The Avicultural Society
President - Dr. Jean Delacour

The Avicultural Society was founded in 1894 for the study of birds in freedom and in captivity. The Society is international in character, having members throughout the world who receive and contribute to - THE AVICULTURAL MAGAZINE which is issued free to members; it is published quarterly and contains articles on a wide range of the world's birds, both common and rare. Illustrations include coloured plates by leading bird artists. The articles are mainly concerned with the care and breeding of birds in captivity, the building of aviaries and general information on avicultural activities throughout the world. There is a part of the Magazine reserved for correspondence.

The Society holds a large stock of back numbers of its 88 volumes, including the earliest years - a price list is available on request. In conjunction with the Linnean Society, the Avicultural Society has founded a Reference Library of works on ornithology and aviculture which is housed at the Linnean Society, Burlington House, London. Members resident abroad can obtain a temporary Reader's Ticket free of charge when visiting Britain.

Subscription rate for 1983 - 25 U.S. dollars • Sample Magazine sent free on request

THE AVICULTURAL SOCIETY
Windsor Forest Stud, Mill Ride, Ascot, SL5 8LT, England

American
Pheasant and
Waterfowl Society

A magazine that is informative to people raising ornamental waterfowl, pheasant, quails, doves, partridge, and miscellaneous birds.

$15 Annual Dues includes membership (10 issues per year)
$20 All other memberships (Canada, Mexico and all other countries)

SEND DUES TO: SEC.-TREAS. LLOYD URE
Route 1
Granton, WI 54436

American Pheasant and Waterfowl Society

The Old pair's fertility deteriorated as the breeding season progressed and only two clutches were laid; the first clutch was of three infertile eggs and the second consisted of one fertile egg which later hatched. However, the pair continued to build nests, copulate and incubate empty nests. While this rate is adequate in the wild, they were considered 'spent' breeders. With limited resources of aviary space, time and personnel etc., it was felt it would be more beneficial if they were placed back into the wild and not retained as possible foster parents. After 215 days in captivity, the old pair were liberated at 15 gms above their capture weights in an area on the foothills of Mount Lidgbird. Efforts to relocate these birds were unsuccessful.

The other wild-caught bird released during this season was the male which could not be paired with the widowed female. After being held for only two months, he was released at Salmon Beach where he had been initially captured.

Four captive-bred birds were selected for liberation in mid-May 1981 on the Little Slope of Mount Gower, an area which supported over forty woodhens in 1914. The area is essentially land-locked by sheer cliffs and sea and is predator-free except for owls and crow-like currawongs (Strepera graculina crissalis).

To enable the juvenile woodhen time
A perfect gift... for conservationist friends!

Limited edition
Endangered Species Portfolio

Twenty-two exquisite color photographs of some of the rarest birds in the world. Each one is printed on quality stock with an attractive border, ready for framing. The text of the portfolio is introduced by Frank S. Todd. Brief photo descriptions were written by Dr. Jean Delacour and Sheldon Dingle. Another important feature is a complete list of world endangered fauna and flora, the results of the June 6, 1981 Convention on International Trade in Endangered Species (CITES).

This is your opportunity to enjoy detailed photographs of birds you may never be fortunate enough to see in person.

You can order this unusual collection only from A.F.A. The price for each portfolio includes shipping and handling costs. (California residents add 6% state tax)

$15.00

Send order, and make checks payable to:
American Federation of Aviculture
P.O. Box 1568, Redondo Beach, CA 90278
to settle and become acquainted with the environment of the release area, the 'gentle release' method of liberation was used with the birds spending fourteen days in coops constructed on Little Slope before being set free. These four juvenile birds have unique colour coded band sequences for easy identification. There have been resightings since the release was made which is extremely encouraging, however, discussion on this aspect is beyond the scope of the present paper.

CONCLUSION

The first twelve months of the captive breeding programme have been very successful. Eight birds (3 female and 5 male) had been removed from the wild and seven released back (four captive-bred). The potential breeding of the captive colony has been now increased to five pairs, and three spare females. First year females have bred in the wild. There are no observations of a year old male woodhen paired in the wild, however, successful pairing of a first year male with a mature female was achieved in captivity. Three pair of hand-raised Woodhen are expected to breed in 1981/82 season, producing the F1 generation.

APPENDIX

The measurements of the six birds captured for the breeding program are within the normal range:

**MALES:**
- CULMEN—34.0mm 35.4mm 36.0mm
- TARSUS—57.0mm 55.2mm 55.2mm

**FEMALES:**
- CULMEN—48.9mm 47.0mm 50.0mm
- TARSUS—52.1mm 49.2mm 51.7mm

PRODUCTS MENTIONED IN THE TEXT

Whisketts cat food:
Manufactured by Uncle Ben's of Australia, RAGLAN, New South Wales.

Chemical Analysis:
- Minimum % crude Protein 30
- Minimum % crude Fat 7.5
- Maximum % crude Fiber 5
- Maximum % Salt 3.7

(Sodium Chloride)

Domex 'forced draft' Incubator:
Onslow 'still air' incubator:
Dominion Incubators Limited, P.O. Box 566, HAMILTON, New Zealand.

ACKNOWLEDGEMENTS

Gratitude is due to Mr. A.G. Caley who was contacted by the New South Wales Government for six months to assist in the project. My special thanks to Mr. G. Phipps, Dr. B. Miller, Dr. K. Mullen, Mr. H.J. Des Disney and Dr. P. Fullagar for constructive criticism, and the New South Wales National Parks and Wildlife Service for use of distribution and location maps.

FOOTNOTE:

These notes, with modification, follow the text of a lecture presented to the American Federation of Aviculture's 9th Annual Convention in San Diego, California August 1981.
CLASSIFIED ADS

CLASSIFIED RATES — $5.00 minimum charge for 4 lines of type (average 7 words per line). Additional charge of $9 per word for ad running over 28 words. (28 words to include name, address and phone.) All copy to be RECEIVED by 10th day of month preceding publication. One inch boxed ad - 58 word maximum — $12.00.


SURGICALLY SEXED BIRDS, Hoffman’s Aviary, Rt. 1, Box 201, Kings Mountain, NC 28086. Call (704) 867-8629.


BLUE-EYED TRITONS, tame $1,800. Mature pairs $3,600. Also Topper’s Bird Ranch Diets. For information call Nancy (301) 983-9112, or write: ZIA, 8408 Harker Dr., Potomac, MD 20854.

GOULDIANS: full color, raised outdoors, banded for birth-date and family identification. Red head and Black heads. $125 per pair. JW. Moore, Corona, CA. Phone (714) 737-0370.

WHITE BREASTED GOULDIANS, BLUE BREASTED GOULDIANS, RED HEADED PARROT FINCHES, all domestically raised. Wayne Conley, Santa Rosa, CA (707) 576-7178.


WANTED: We are a mail order company looking for a few more quality lines to add to our inventory. Interested in nutritional supplies, books, “parrotfinalia.” Quality products only please. We pride ourselves on the best. Our mailings and customers are coast to coast in Canada. Please send price list and description to R. Moroz, 3253 33rd Street West, Saskatoon, Sask., Canada S7L 4R1.

CLASSIC DESIGNED BIRD PERCHES AND STANDS. Tablettop and hanging models in two sizes. Larger Parrot stands, $45.00 each. Smaller Cockatiel/Lovebird stands, $9.95 each. All constructed with hardwood dowels, two removable feed cups, anodized aluminum trays. Send S.A.S.E. for illustrated brochure. Orders shipped freight collect. Send check to: Bird Things, Co., 920 W. Carmen Avenue, Chicago, Ill. 60640.

SILVER FLIGHT balanced diets - Aviary supplies. Write for prices. UPS delivered. 10537 Steel Trace Court, Novi, Michigan 48377.

TALLWOOD AVIARY SUPPLY SILVER FLIGHT balanced diets - Aviary supplies. Write for prices. UPS delivered. 10537 Steel Trace Court, Charlotte, N.C. 28210.

COCKTAILS: lutinos, lutino pears, pearls, pearl pieds, green pearl pieds, cinnamons, cinnamon pearls, cinnamon pearl pieds, cinnamons pieds, fallows, splits of most mutations. Also, Golden maintained rollers. Some breeders available. Will ship. Double Grove Aviary, (213) 919-5989.

POLLEN—NATURE’S MIRACLE FOOD...is a natural and often necessary part of a healthy bird’s diet, especially at breeding time...and your bird’s health is your greatest pleasure and investment. We supply pollen guaranteed to be fresh and of the highest quality. One lb. w/info sheet $12. Five lbs. $53. Sample w/info sheet $1, all post paid. Kawana Honey, 21000 Kawana Springs Route, Santa Rosa, CA 95404. (707) 528-4377.


BIRD BELT BUCKLES handcrafted in solid brass. Budgie, Finch, Macaw, Cockatoo and Parakeet. $15 + $2 postage. If ordering more than one, pay only $14 + $2 postage for each additional buckle. Send to T. & M. Mulroy, 4689 Winnebago Avenue, San Diego, CA 92117. Enquiries welcome.


HOFFMAN’S AVIARY, 4000 birds, over 200 different types to choose from. Visitors welcome. Call (704) 867-8629 or send SASE to Hoffman’s Aviary, Rt. 1, Box 201, Kings Mountain, NC 28086.

NATIONAL PARROT ASSOCIATION, organizing now to educate and entertain hobbyists, collectors, fanciers of parrots, macaws, cockatoos, cockatiels, conures, budgies, etc. Bi-monthly newsletter featuring information we can all use. Member articles. Recognized experts. Photos, Q’s & A’s, classified listings and more. If interested in joining or contributing, write: National Parrot Association, 8 North Hoffman Lane, Hauppauge, NY 11788.

SPRING-SUMMER HATCH. Hand fed and hand tamed from hatching: Triton & Moluccan cockatoos, Hyacinth macaw, Bare-eyed and Rose breasted cockatoos. Also available—28’s, Sun conures, and Blue rosellas. FEATHER HOLLOW RANCH, P.O. Box 6391, Woodland Hills, CA 91365. Phone (213) 340-5086.

3 BOOKS—The Cordon Bleu, The Fire Finch, Green Singing Finch. Each covers complete step-by-step care and breeding instructions for cage or aviary. $5.00 each. (Please specify) Postpaid—handmade baby finches, formula and easy-to-follow directions, $5.50. Gretchen Barker, 7837 Gladstone, White City, Oregon 97503.

Own inexpensive HAND-FED BIRDS THAT CAN TALK! We have Alexander and Indian ringnecks, moustache parakeets, cockatiels and budgies. Hatched in our home. References given. PARROT PALS (517) 835-1652, Michigan.

COCKATOOS: Umbrellas, Molucuans, Lesser sulphurs, ASIAN: Emerald collared, Long tailed, Hanging parrots, Fig parrots, Amboina kings, others on request. Call or write to: Zoological Park For The Birds, 1775 N. Rancho Dr., Las Vegas, NV 89106. Pat Dingle (702) 647-4685.

BIRD QUEST. The Feather Merchant, 1350 Chaney Blvd., Chicago, Ill. 60640.

WANTED—MACAW AND PARROT FEATHERS—CASH FOR FEATHERS dropped by your birds when they moult. Scarlet macaw center tail feather $3.00 ea., wing feathers 25¢ ea. We are prepared to buy in any quantity. More information & detailed price list on request. The Feather Merchant, 1350 Chaney St., El Cajon, CA 92020. (619) 442-2224.

POLLEN: Mother Nature’s conditioning food. Powder (birds only) $4.50 per lb., Pellets (birds & people) $5.50 per lb., $5 per lb. for 5 lbs. or over, plus shipping. Follow UPS chart. Add $1.00 for shipping container. Jim Ford, Dept. D, 71630 S. Brookhill Drive, Salt Lake City, UT 84121. (801) 943-7618.

BIRDS OF ALL TYPES—Hoffman’s Aviary, Rt. 1, Box 201, Kings Mountain, NC 28086, phone (704) 867-5029.


1982 BABIES—SUPERTAME - HAND RAISED: MACAWS - Scarlet, Blue & Gold, Military, Green Wing, Carolina, Yellow Collar, Nobie, Severe. COCKATOOS - Umbrella, Moluccan, Triton, Citron, AMAZONS - Blue Front, Double Yellow, Yellow Nape, Hispanolan, Red Head, Spectacle. CONURES - Sun, Jenday, Gold Cap, Austral, Stendehil. We raise 16 different species of conures. CAIQUE - White Belly. RINGNECKS - Alexandre- dine, Indian, Lutino and Blue plus splits. COCKATIELS - All ACS banded - Normals, Lutinos, Pieds, Pears, Cinnamon, Cinnamon Pearl, Cinnamon Pied, Albino Pearl - ALSO DOMESTIC RAISED SURGICALLY SEXED PAIRS AVAILABLE - Will consider trade. TURQUOIRES, 3986 10th Ave. N., Lake Worth, Fl. 33463 (SASE) (305) 966-4214 or 967-0546.

NEW PARAKEET and COCKATIEL JEWELRY now available in pins, and earrings—wire or stud styles for pierced ears only. Pins - $5 each, Earrings - $10 per pair. Keet colors, blue-white, green-yellow, turquoise-yellow. Cockatiel colors, albino, normal. Please specify colors and earring backs. Also available in attractive solid brass, PAPERWEIGHTS $19.50 each, and belt buckles, etc. with your choice of birds. Write for catalog sheet of birds available. Calif. res. add 6% tax. Send to AFA, P.O. Box 1586, Redondo Beach, CA 90278. (213) 372-2988.


FOR TRADE: Pearly conures (Pyrrhura perlata) Surgically sexed pairs from the only two unrelated breeding pairs in the USA. For other rare pittacines, Pyrrhura, etc., VOREN'S AVIARIIES. (305) 793-5528 (Florida).

BOOK—GREY-CHEEKED PARAKEET, is now available. It contains information on diet and breeding. Send $4 to Nancy Ruffalo, P.O. Box 2481, Capistrano Beach, CA 92624 (price includes postage)

HAND RAISED BABIES: Red sided Eclectus, Sun conures, Blue head Pionus, African greys, Citrons, Kakariris. O'Nita Buchwald, (713) 337-2781 or David pierced ears only. Pins - $5 each, Earrings - $10 per pair. Beaks 'N' Tiques, P.O. Box 232, Niwot, CO 80504. Phone (303) 652-2661. Beaks 'N' Tiques, P.O. Box 232, Niwot, CO 80504.


HYACINTH MACAWS to zebra finches. Hoffman’s Aviary, Rt. 1, Box 201, Kings Mountain, NC 28086; or call (704) 867-8629.

FREE INFORMATION on control of bacteria, pollen and bird dust. Prevent inhalation problems in lungs and sinuses. ECOLOGY AIR, 67 Wilson Drive, Worthington, Ohio 43085. Phone (614) 888-7824.

HYACINTH MACAWS to zebra finches. Hoffman’s Aviary, Rt. 1, Box 201, Kings Mountain, NC 28086; or call (704) 867-8629.

FOR SALE, surgically sexed Moluccan cockatoos, and two mature males, or will trade for young female Grand Eclectus. Phone (210) 748-8848. Bloomfield, NJ area.

SURGICALLY SEXED plain colored Amazon, tame, mature hen in excellent health. Must sell this rare species to experienced breeder. Will ship. (303) 652-2661. Beaks 'N' Tiques, P.O. Box 232, Niwot, CO 80504.

COCKATOO BABIES, 1983 hatch. Moluccan and Greater sulphur crested—hand raised with TLC from day one! These babies are the ultimate! "STARSIGN" Kim and Patty Knoblauch, (304) 725-5601 or (304) 725-7300, Charles Town, West Virginia area.


RAINBOW GOULDIAN FINCHES—Lady Gouldian finches. All normal colors. All ages. Beautiful young pairs ready for breeding. One free Society finish with purchase of pair. Discounts on orders of more than five pairs. Breeding advice free. Inquiries welcome. Phone (703) 356-6050 Washington DC area.

CAIQUES: black-headed, two. Surgically sexed males. Healthy, beautiful feather. Have been in captivity for 5 years $350 for both or make offer. (808) 841-1216 (Hawaii).

LOST. African grey Congo parrot, 14 years old, light grey with bright red tail feathers. Has a new growth mark at end of upper back, resulting from damage done in his active youth. Tends to pull his feathers out if you change his or your habits. His vocabulary--"Grable, get over here, hey, hello, wolf whistle, my name unrelated pairs. Not equipped to ship. Call (704) 867-8629.

WANTED: male Salvin's Amazon (Amazona autumnalis salvini) Must be in excellent health. Call B. Milam (406) 425-0945 Santa Cruz, CA area.

IlLINOIS AVIARY—domestic bred hand fed African grey parrots $800. Moluccan cockatoons $1,800. Call (312) 428-8218. SCARLET FEATHERS, Barrington, Ill.

VET. CLINIC is seeking quality products for resale to clients. Manufacturers and suppliers are invited to send info. to Sally Hannamayer, 200 Hannamayer, 200 W. 70th St., #10 H, NY, NY 10023.

JUST for you! Chattering lory, very rare breeders. (312) 425-0945 Santa Cruz, CA area.

BABY TRITON COCKATOO, hand fed, very large, already talking. BABY TRES MARIAS, hand fed, talking. A. Chandler, (213) 454-6971 LA area.

TRITON COCKATOO tame pair $3,600. Single female $1,800. Potomac, MD area (301) 983-9112 or 986-6391.

CAIQUES—black-headed, two. Surgically sexed males. Healthy, beautiful feather. Have been in captivity for 5 years $350 for both or make offer. (808) 841-1216 (Hawaii).

200 W. 70th St., Charles Town, West Virginia area.

FOR SALE. Pearly conures (Pyrrhura perlata) Surgically sexed pairs from the only two unrelated breeding pairs in the USA. For other rare pittacines, Pyrrhura, etc., VOREN’S AVIARIIES. (305) 793-5528 (Florida).

BOOK—GREY-CHEEKED PARAKEET, is now available. It contains information on diet and breeding. Send $4 to Nancy Ruffalo, P.O. Box 2481, Capistrano Beach, CA 92624 (price includes postage)


BABY TRITON COCKATOOS, Bare-eyed cockatoos bred at home and hand fed. Also Blue & gold macaws, African greys. Super tame pets. Charley Osterbrink, NIGHT FLIGHT FARM, Box 142, Nesbit, MS 38651. Phone (601) 368-7972.
BOOK—BIRDS OF PREY (Southern Californ­ia), 1 1/2 x 1 1/2" field guide. Covers 12 com­mon species in short sentences. Most birds—most birds throughout State 20 color pictures, juvenile & adult. Written in simple terms for non-bird­person. Send $12 p.p. to: North County Rehabili­tation Center for Birds of Prey, P.O. Box 164, Cordrey, Dr., Escondido, CA 92025.

TAME BABY TOCO TOUCAN born 2/92. Never caged, in beautiful feather. Phone or write for photos. Forester Wulf, 8406 Harker Dr., Potomac, MD 20854. Phone (301) 963-9112.

PERIMETER SECURITY ALARMS. Wholesale prices, dependable and 100% guaranteed. Save your birds and keep them at home. Write or call for full info. Free literature. Forester Wulf, 8406 Harker Dr., Potomac, MD 20854. Phone (301) 963-9112.

CONGO AFRICAN GREY PARROTS—1983 BABIES Mrs. Lee Howells (619) 727-5972. (CA) Trades con­sidered.

HAND-FED, DOMESTICALLY RAISED BIRDS. Amazon Parrots, African Greys, Lories, Eclectus, Cockatoos, Lorikeets, Parakeets, Conures, and others. Some young, some babies from unrelated pairs available. Call or write for species availability and price list. Gail Worth, Aves Internation­al, 2808 Oregon Court—Unit L8, Torrance, CA 90503, (213) 541-1190.

Red Lored Amazon Male $300; AUSTRALIANS: Blue Rosella hen $150, Young Blues $125, Scarlet Chested Parakeet males $125, Young Scarrs $100, Yellow Borkens $275, Split Yellow $100; ASIANS: Lutine Ringnecks $350, Poss. Split Blue Hen $100, Moustache $125, HAND-FED’S: Umbrella Cockatoo, Masked Ringnecks $150, Moustache $150; LOVEBIRDS: Peachface Mutations—Lutine & Albino; only $80, Cherryheads $30, Masked—Blue, etc.; Cockatiels; Cuban Olive Finch $200 pr; D. Cavender—MOCTEZUMA BIRD GARDENS, P.O. Box 1973, Escondido, CA 92025. Will ship. Trades con­sidered. (619) 741-3421.

DECORATIVE MANZANITA HARDWOOD PERCHES 36" long. Medium diameter for par­rots—12 for $25, large diameter for macaws —$10 for $25, extra large diameter—$5 for $25. All orders shipped freight collect. California residents add 6% sales tax. Send check with order to LAUTA’S BIRDS, 5695 Happy Valley Road, Anderson, CA 90007. Phone (916) 357-3100.

AUSTRALIAN FINCHES: Owls $120 pr.; Diamond doves $100 pr., Heck’s shafttails $70 pr. All birds bred here in my aviary. Micky Senior (206) 745-4310, evenings & weekends (Seattle, WA)