



# The Bird Supply Catalog that soars above the rest!

## The exciting Wingnut Supply catalog.

Our customers call this the largest, most informative  
and best-produced bird supply catalog they've ever seen!

☐ Quality products from such  
manufacturers as Hagen, Nekton,  
Kaytee, Lafeber, Mardel, Super  
Preen, McBaubbles Toys,  
TFH Books and Prevue.

☐ 68 fully-illustrated pages, packed  
with detailed information.

*Send for yours today!*

Please send me the informative Wingnut Supply  
catalog filled with exciting savings! Enclosed is  
\$5.00 (refundable with my first order.)

**Wingnut  
Supply**

NAME \_\_\_\_\_

58 Providence Hwy., East Walpole, MA 02032

ADDRESS \_\_\_\_\_

Order catalog and supplies TOLL FREE.

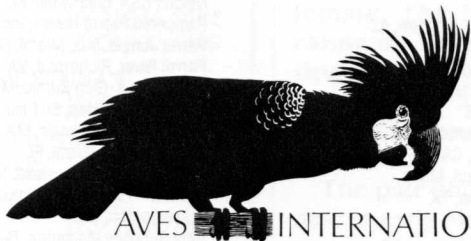
CITY \_\_\_\_\_

STATE \_\_\_\_\_

ZIP \_\_\_\_\_

**1-800-999-PET1**

48-hour delivery service available.



AVES INTERNATIONAL

## DOMESTIC, HAND-FED BABIES

African Greys, Amazons, Caiques,  
Cockatoos, Conures, Eclectus,  
Jardines, Lories, Macaws, Pionus,  
Senegals, Toco Toucans, and Others.

**Our Specialty is  
Rose-Breasted Cockatoos.**

Gail J. Worth  
P.O. Box 1919  
Wilmington, CA 90744  
(213) 541-1180



Photo by George D. Dodge/Dale R. Thompson

## Danish Hyacinth Macaw Project in Pantanal, Brazil

by Peter H. Them  
Denmark

*The following is a valuable field  
research project to be carried out by  
the Danish biologists Elin Pitter and  
Mette Bohn Christiansen.*

### Distribution

The Hyacinth Macaw, the largest  
parrot we know, is not a typical rain-  
forest species. Only in a very small  
part of its range, southeastern Para,  
does this species occur in tropical  
rainforest, where it prefers marginal  
situations.

The most numerous populations of  
Hyacinth Macaws are found in the  
Pantanal of Mato Grosso.

Deep in the geographic center of  
South America lies the largest, most  
diverse and, perhaps, least known  
wetlands in the world: the Pantanal.

It is the Brazilian portion of the  
"Gran Chaco," but it also extends into  
Argentina, Paraguay and Bolivia. Its  
roughly 54,000 sq. miles (130,000 sq.

km.) lie in the Paraguayan Basin, which actually drains into the Atlantic between Buenos Aires and Montevideo. The term "pantanal" means "swampland" or "flooded plain," and is actually a misnomer; less than 2% remains flooded year-round. Only a small portion is comprised of swamplands. In fact, when the rivers are not in flood, the water table is 33 feet (10 m.) below the ground surface.

The principle river is Rio Paraguay, running a good portion of its 840 miles through Brazil. Each year, the Paraguay and its Brazilian tributaries flood their banks, putting two thirds of the lands under water at the flood's maximum height. This cycle normally occurs between October and March, with the highest waters in January and February. The water starts to fall in March, and continues to do so until the next rains. Even during the dry season, it is one of the wettest places in the world, and rains are not uncommon.

The yearly flooding is essential to the Pantanal's many different ecosystems. The waters form the lakes with perfect ecological niches for the many micro-organisms, animals and plants inhabiting them. It also provides many amphibians a place to lay eggs which, in turn, provide food for several fish species, as well as caiman and birds. When the waters start to recede, the surviving young are already turning into adults and are preparing to leave the nest and will start hunting on their own.

Temperatures in the Pantanal vary, with a mean average of 77°F (25°C). November and December are the hottest months, when the temperature can soar to over 100°F (40°C). In the winter months of June and July, the average minimum temperature is 54°F (12°C).

The vegetation of this area is very complex, containing elements from open "campos" to dense, humid forests. There are also stands of Buriti palms, and it is principally near to these palms where one may observe the Hyacinthine Macaws.

#### Project Description

The Zoological Museum of Copenhagen has an old research tradition in Brazil through the work (1824-1880) in Minas Gerais by the Danish biologists Peter W. Lund and J. Reinhardt, who wrote a detailed description (in Danish) of the local avifauna.

Two Danish biologists, Mette Bohn

#### GOWER'S AVIARY

500 WOODLAND RD., RALEIGH, NC 27603 (919) 779-6076



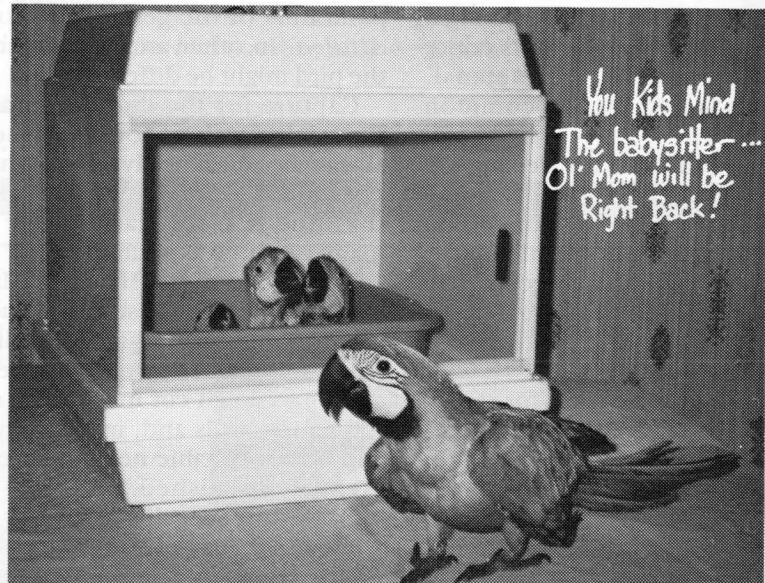
DOMESTIC HAND-FED, CLOSED  
BANDED AFRICAN GREYS (CON-  
GO & TIMNEH), SENEGALS, MEY-  
ER'S, RED BELLIED PARROTS,  
CONURES, PIONUS, AMAZONS.  
DISTRIBUTORS OF ROUDYBUSH  
HAND-FEEDING DIET, PELLETS,  
CRUMBLES.

As of January 1, 1990, AFA's policy was reaffirmed to no longer allow hybrid birds to be offered for sale in its official publication, the *AFA Watchbird*

*Hummingbirds*  
*Lories • Tanagers*  
*Rare Finches*  
*Park Birds*  
*Singing Birds*  
other birds upon request  
Also have high  
quality nectar diets!  
Dick Schroeder  
(213) 776-6486  
Don Wells  
(714) 371-8330  
for the rare and unusual




## Thief of Hearts<sup>®</sup> Nursery \* Hospital



Pat. Pend.

ONLY

**\$149.95**

+ \$10 S & H

OR 3 FOR **\$399.95**

+ \$30 S & H

Circulating Air  
Thermostat Controlled

— Temperature —

— Humidity —

INSIDE DIMENSIONS 17x17x17  
30-DAY MONEY BACK GUARANTEE



AVIAN  
FIRST-AID  
KIT



—Hospital Quality Stainless Steel Instruments—

PLUS A Complete Book On  
Emergency Procedures  
Only **\$49.95**

Call or write for complete catalog

Avian "Pet"iatric Supply  
"Cheep"<sup>®</sup>

Thief of Hearts Aviary  
421 N. GLENN  
WICHITA, KS 67203  
(316) 267-1656

Christiansen and Elin Pitter, who on two previous occasions had done field studies in Brazil, traveled in January 1990 to Pantanal to do a study of the basic requirements of the Hyacinth Macaw in the wild.

The work will take them into an area known to be used by parrot traders, and they will be able to witness the problems of the illegal bird exploitation first hand. They are aware that this may involve certain personal risks, and have undertaken to behave in a responsible and unobtrusive manner.

Mette and Elin will return to Denmark in June 1990. They will analyze their data, interpret them and discuss them and then, as soon as possible, return to the area in Pantanal, to continue the project on a larger scale.

### **Statement of Conservation Need**

The Hyacinth Macaw is suffering a marked decline throughout its entire range, particularly in the Pantanal, although it is still locally common there.

The main causes of the decline are the illegal capture for the pet trade, and probably also the loss of certain vegetational elements. Unless this trend is reversed, this species may soon become extinct in its natural habitat.

Some parts of the Pantanal still have sufficient populations for studying the bird and its basic requirements under natural conditions.

A knowledge of the sensitivity of the macaw to disturbance is a prerequisite for a properly planned tourism in the area. Tourism could furnish an income for the locals and would then be a good incentive to preserve the bird in the wild.

### **Significance of Conservation Issue**

The situation for the Hyacinth Macaw is not exceptional. Many other parrot species face the same threats as the Hyacinth Macaw. The study will have relevance for the conservation of these species as well.

### **Objectives**

The primary aims of the study are: 1) to collect information on habitat use and the basic biological requirements of the species for food and nesting under natural conditions, 2) to investigate the tolerance of the Hyacinth Macaw to disturbance from tourism in the area and the impor-

tance of the bird as a tourist attraction.

### **Background Information**

The Dane, Jorgen Bent Thomsen (WWF TRAFFIC UK, former U.S.) visited the Pantanal about two years ago and found the situation for the Hyacinth Macaw very critical.

The population has declined drastically during the last few years and it is estimated that there are less than 3,000 individuals still in the wild.

The major causes of the decline of the species is the illegal capture, but other factors might be involved as well, such as the accelerating destruction of certain vegetational elements of the habitat.

At least in the central part of the distributional area, the Hyacinth Macaw is threatened by cultivation of the cerrado, where the macaw forages. In that area, this macaw prefers palm nuts of the genus *Syagrus* and *Attalea*. In other areas, the menu of the bird might be different.

Capture for the cage-bird trade is especially serious for the Hyacinth Macaw because the Hyacinths, in contrast to the Red-fronted Macaws and the Blue & Gold Macaws, are normally captured as adult birds.

The young of the Hyacinth Macaw are taken from the nest less frequently because they suffer high mortality in the first weeks. In some areas, nesting trees have been cut in order to catch the young birds and, in this way, the amount of suitable nesting holes has greatly diminished. This can be a limiting factor locally.

In some parts of the Pantanal, the Hyacinth Macaw is regarded as a pest and is therefore eliminated.

The birds can withstand an enormous amount of human disturbance as long as: 1) they are not captured, 2) they are not hunted for meat or feathers, 3) they have food plants, 4) they have nesting sites.

### **Methods and Plan of Action**

Elin and Mette plan to do field studies in the Miranda near Aquidauana as recommended by Jorgen Bent Thomsen. There are still good populations of the Hyacinth Macaws in this area and accommodations can be provided on a farm.

The first study takes place from January to June, 1990. The field techniques (observations, capturing, etc.) are being planned in close contact with Carlos Yamashita, Paul Roth and Charles Munn. Decisions about what

is the optimal study area and number of birds to be followed are best made after the first weeks in the field.

Elin and Mette intend to contact local trappers, because they can give important information about the bird and its status and can recommend places and methods for catching the birds for banding.

### **Habitat Use and Feeding Habits**

Initially, Elin and Mette intend to focus on a few pairs or a small party in a small area and make a study of their home range size, in particular the importance to the macaw of the different elements in the landscape. Elin and Mette want to clarify the pattern of movement of the individual birds on a daily basis and how much of the habitat's potential food resources are actually used by the Hyacinth Macaw. For this purpose, Elin and Mette need to band and radiotrack some individual birds.

Radiotracking on parrots is a little studied subject and is very difficult because of the behavior of the birds (they usually don't accept any foreign objects attached to their bodies).

Jorgen Bent Thomsen has made contact with Jim Weily, who has worked with radiotracking on the American Condor. He is interested in joining the project initially to help set up the radiotracking part of the project. In connection with this, Brazilian biologists who would be interested in learning the technique could be invited to participate. After having had more experience, Elin and Mette would like to hold a workshop on the subject.

It is known that the Hyacinth Macaw prefers various species of palm nuts, but a more detailed study of their food requirements would be very useful for conservation purposes.

Elin and Mette would do both field observations of the time budgets of the birds and their food selections. They will also make examinations of stomach contents as a supplement to observations of the feeding. Extraction of the stomach contents will be carried out by anesthetizing the bird and then pumping out the contents of the stomach. A veterinarian will teach Elin and Mette the technique. Samples of the stomach contents will be taken at regular intervals during the study period to reveal changes in the composition of their food intake. Furthermore, fruits will be collected for determination of nutritional value.





# For the Life of your Bird

# ROUDYBUSH



\* Handfeeding Formulas for Baby Birds.

- Psittacines                      — Nectivores
- Squab                              — Wildlife Rehab.

\* Maintenance Pellets and Crumbles.      \* Nectars

\* Breeder Pellets and Crumbles.              \* Medicated Pellets and Crumbles.

These convenient foods have been formulated based on data from university research. The handfeeding formulas just mix with warm water. With pellets and crumbles there is no expense and mess due to seed hulls, and there is good nutrition in every bite. All of our products exclude animal and fish byproducts to eliminate potential sources of gram negative bacteria.

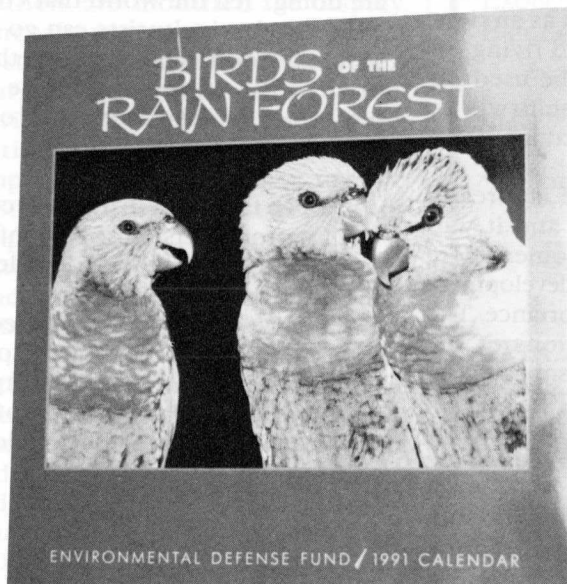
*Let Tom Roudybush, one of the world's leading pet bird nutritionists, be your bird's nutritionist.*

For information, please contact us:

P.O. Box 331, Davis, CA 95617-0331 or phone (916) 661-1726

## Looking ahead . . .

## 1991 Exotic Bird Calendars

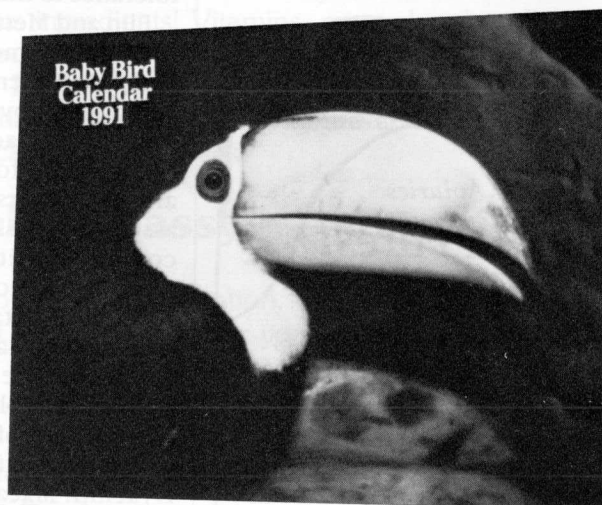


**BIRDS OF THE RAINFOREST**, an environmental defense fund calendar, features brilliant 12" x 12" photos of Lories, Eclectus, Macaws & more! ..... #EDF \$8.95

**TROPICAL FEATHERED FRIENDS \$9.95 • BIRDS & BEASTS \$8.95** also available. Send for color brochure of all our "Parrotphernalia"!

**SHIPPING:** \$2.50 for entire order within continental U.S. Offshore U.S. and Canada, add \$1.00 additional per calendar for postage. **FOREIGN:** inquire for rates. U.S. check or M.O. only. FL residents please add sales tax.

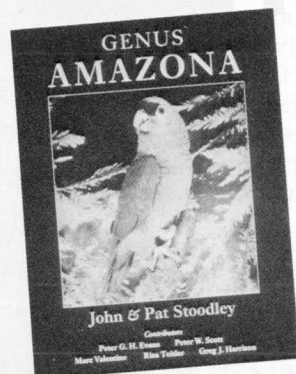
**THE 14 KARAT PARROT • P.O. Box 182, Sanibel Island, FL 33957 (813) 472-8738**



We're proud to be your authorized mail-order source for the **1991 Baby Birds Calendar** by Aves International. 10" x 13" color photos of domestic baby birds atop each month! Congo Greys, Amazons, Macaws, Pionus, Conures & Cockatoos. 13 photos! Bird care hints too! 12 topics! ..... #BA1 \$8.95

# AMAZONS

by  
John and Pat Stoodley  
135 pages, 8-1/4" x 11-1/4"  
85 full color plates



**\$78.00 plus \$2.50 shipping**

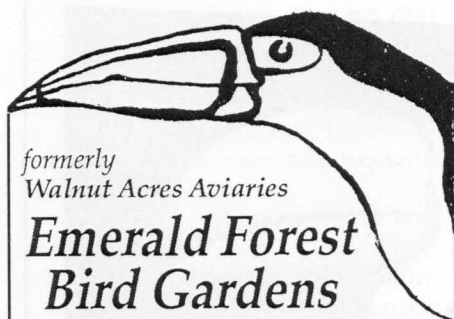
**Dale R. Thompson**

P.O. Box 1122, Dept. AF  
Canyon Country, CA 91386  
(Calif. residents add 6-1/2% sales tax)  
(805) 252-4871



**Risa Teitler**

P.O. Box 1392  
Miami Springs, FL 33266-1392  
(Florida residents add 6% sales tax)  
(305) 885-7453



formerly  
Walnut Acres Aviaries

## Emerald Forest Bird Gardens

45 wooded acres, streams,  
ponds, and tropical gardens  
devoted to propagation  
of exotic birds.

*breeding*

Toucans, Toucanettes,  
Cockatoos, Macaws,  
Eclectus, African Greys,  
Australian parakeets,  
Parrots and Finches

**All Birds Closed Banded**

Call or write for price list.  
Jerry Jennings

**(619) 728-2226**

Route 6, Box 14  
Fallbrook, CA 92028  
Visitors by appointment only

### Nesting Locations and Breeding Habits

Nesting locations will be studied, especially which species of trees are used. In some areas, holes in cliffs are used for nesting.

Furthermore, Elin and Mette will monitor the breeding behavior and success of the pairs. Fledgling birds will be banded. This will give information about social structure, survival and movements.

### Tourism:

#### The Ecological Components

The Pantanal is currently being exploited in different ways, many of these having a deleterious effect on its flora and fauna. A sustainable use of the area could be tourism, if planned properly. In this project, Elin and Mette would like to investigate the tolerance of the Hyacinth Macaw to disturbance.

Elin and Mette will study a flock of Hyacinth Macaws which is accustomed to disturbance from tourism. Experiments will be carried out on Roberto Kalvin's farm, where a tourist lodge is situated. It is known that the Hyacinth Macaw is quite tame if not persecuted, but it is important to find the threshold level of the birds' tolerance to this disturbance.

Elin and Mette will expose the birds to various amounts of disturbance, such as different sized groups of tourists passing by at different intervals. Behavioral reactions such as anxiety, cessation of foraging, and flying off are parameters that will be used for assessing stress. These results will be compared with the behavior of an undisturbed flock.

In the Pantanal, there is already tourism in many places and it will expand in the years to come. Therefore, a major plan for the development of tourism is of great importance. The knowledge of the reactions of the Hyacinth Macaw to tourism can contribute to such a plan.

The researchers also plan to interview the tourists to get an idea of the importance of the bird as a tourist attraction. Elin and Mette will work out a questionnaire for distribution among the visitors on the farm.

### Economics, Sociological Components and Local Involvement

Elin and Mette have contacted Professor Eliezer Marques, director of research at the Federal University of Mato Grosso do Sul. He was very interested in the project and guar-

anteed his support. The project could be integrated in a major conservation plan for Pantanal, and the university would like to continue the project.

Roberto Goncalves, director of the Departamento de Recursos Naturals at SEMA-MS also was contacted. He will be helpful in contacting the land owners to facilitate working in various places in the Pantanal.

Elin and Mette will discuss with the locals, as well as people in the travel industry, possible ways of creating a bird tourism that could represent an economic alternative to the present exploitation of the wildlife.

### Hyacinth Macaw Tours

"Let the tourist visit the wildlife, instead of shipping the wildlife to the tourists."

Together with the Dane, Mr. Sander Gellert, SAS (Scandinavian Airlines) Rio de Janeiro, and his wife Vilma, who runs the travel agency Colibri Tours, we would arrange Brazilian bird tourism in the Pantanal and other Brazilian locations.

From Scandinavia we will, together with WWF, arrange Hyacinth Macaw tours to the Pantanal.

### Better Propaganda

With help from television, radio and newspapers, we will promote the Hyacinth Macaw project. We feel it is important to tell the world what we are doing. Tell the world that conservation and aviculturists can go hand in hand. We all must work together to prevent the extinction of the Hyacinth Macaw, and any other of the world's parrots.

### Help the Hyacinth Project

All parrot lovers must be confident that this project has considerable conservation value.

The Hyacinth Project welcomes donations. We would be glad to hear your viewpoints on desirability and possibilities for funding of the project. Checks should be made payable to:

Hyacinth Project,  
Jon Fjeldsa, Dr. Phil.,  
Curator of Birds,  
Chairman ICBP Denmark,  
Zoological Museum,  
Universitetsparken 15,  
2100 Copenhagen,  
DK. - Denmark

The Zoological Museum is responsible for the scientific quality of the project. Dr. Jon Fjeldsa is the supervisor. ●