three hours to come down took five hours to climb.

Future of the Bearded Wood-partridge

Considered restricted to cloud forest in Veracruz, the Bearded Wood-partridge was found also to inhabit disturbed riparian areas in Hidalgo (and on a later trip, in Queretaro). While these areas may provide food resources, roosting and nesting habitat in adjoining areas of the forest are also required to sustain viable populations of wood-partridges.

Concentrating populations in fragmented habitats makes them extremely vulnerable to predation. Unfortunately, areas inhabited by wood-partridges in the vicinity of Veracruz are valuable for agricultural purposes. This is not the case further north in the state of Queretaro where the birds were found in the uninhabited northeastern forests of the Sierra Gorda Biosphere Reserve. The species last hope may well be at the peripheral edge of its range where it has had to adapt to harsher conditions and an environment of little interest to man.

While most aviculturalists are familiar with the plight of the Masked Bobwhite and Attwater's Prairie Chicken, both are in reality subspecies of more wide ranging species. The Bearded Wood-partridge is monotypic hence declared endangered at the species level. Only the people that share the forests with the wood-partridge can determine its destiny in Mexico. The documentation of a wider distribution and tolerance of secondary habitats however creates significant optimism as to the future survival of the species on the planet.

About the Author

Jack Clinton Eitniear is a member of several IUCN specialist groups. He is the editor of the BULLETIN OF THE TEXAS ORNITHO-LOGICAL SOCIETY as well we director of the Center for the Study of Tropical Birds, Inc.(CSTB) a 501 (c) 3 tax exempt corporation devoted to conservation of neotropical birdlife in the wild. He has published over 20 articles in scientific publications as well as over 50 popular articles. CSTB has recently joined AFA, the National Aviary in Pittsburgh, and Primarily Primates in an effort to explore the feasibility of releasing AFA consortium siskins into the wild.

Breeding Handfed Amboina King Parrots

Alisterus amboinensis

by EB Cravens, Waiohino, HA

n January 3, 1991, I realized a long-time dream by acquiring an unrelated pair of handfed weaned Amboina King Parrots Alisterus amboinensis. They were purchased at a price of \$300 each form Diane Welch, Scotia, CA, an experienced and conscientious hobby breeder of kings, Red-fronted Macaws and other parrot species. They were in pristine condition. I will never forget the way personnel in the bird room at Feathered Friends of Santa Fe, NM literally caught their breath as the two juveniles emerged from an airline shipping case. Wow! Such beauty! I was hooked.

Though shy around strangers and probably fatigued after a long flight, the two sexed psittacines were quite well-behaved. They would perch on an arm, come to a shoulder for treats; while the male especially liked to give and receive kisses. At 219 grams (male) and 207 (female) as immatures, it is possible that these birds are not the large nominate *A. a. amboinensis* subspecies, but as I have not yet found a study documenting size differences of various races, this is not easy to tell.

Two weeks later the pair make the long trek with me to my winter home on the Big Island of Hawaii and were installed in an 8 X 4 X 4 foot cage outdoors in the backyard of a hobby breeder friend of mine. There they received optimum care while awaiting sexual maturity. Setting up a young pair like this is an excellent technique when dealing with high-spirited, often quarrelsome Austral-Asian parakeets. It allows the two birds to bond tightly before frenzied variables of sexual activity enter the picture. Yet, even this does not guarantee success as I was to learn. A. amboinensis is not an easy species to reproduce in captivity.

"Ohia" and "Lehua," as we named them, went along fine until the spring of 1994 when, at age four, their activity level increased dramatically. He would chase her around the cage and occasionally get her cornered on the suspended floor where she would screech and feathers would fly. As this was obviously not a positive prelude to successful breeding, I contacted some expert aviculturists for advice. Conclusion was a 8-foot-long cage was not sufficient for breeding these fullflighted birds. The next two weeks were spent preparing a 4 X 6 X 6 foot walk-in aviary. The birds were moved into it, and a new hollow nest was provided. Chasing and abuse was alleviated. Though the male would screech and go after his hen, Lehua could get away in the larger enclosure.

Two months later, disaster struck. The keeper came out for morning feed and discovered the female dead on the ground in the aviary. Diagnosis: a broken neck. I was heart-sick. I began to feel I had no business working with such an unpredictable species. What's more, I began to see that leaving my own breeder birds in the care of someone else was somewhat irresponsible. *No one* takes care of your birds like you do.

The fall of that year, I moved all my pet and breeder psittacines up to a half-acre farm lot and made the decision to remain permanently in Hawaii. Ohia, the lone male Amboina King, was given a 4 X 4 X 16 foot cage bordering one side of the garden plot of aviaries. He became very friendly to me; I was leaning toward keeping him singly as an aviary "pal."

Then in February, 1995, while on a visit to Dale Thompson's California facility, I learned of a party in the San Jose, CA area who had the Princess of Wales male I sought and *two* Amboina King females. The truth of the matter is, I detest keeping birds without mates — considering it both unnatural and not humane. One of his hens was a five-year-old proven female, the other a very inexpensive hand two-and-a-half-year-old with a leg healed crooked after an in-nest break.

"What happened to the mate of

your proven hen? I asked the owner. "She killed him," he replied, and my decision was made. I thanked him for being so honest and purchased the younger female for \$150.

I named her "Maile" after the sacred Hawaiian wedding lei plant of sweetsmelling green leaves. She arrived in Hawaii with me February 23 and was placed in a 4 foot cage attached to the side of an 8 foot flight in which I put the male. He seemed quite interested in her, but as she was not yet three and spring breeding season was coming up, I kept them apart with double wire so no biting would occur. October that year after all my parakeet pairs had rolled up their hormones and quit breeding for the season, I cut two 6 inch X 6 inch holes through the double wire at the front and back perches where the two king cages butted up.

Now, one thing I have noticed about amboinensis. This is what I would call an extremely "quick" species of psittacine. They are swift of flight, very aware of every detail in their aviaries, and insatiably curious. If I leave a garden rake or pruning shears in today's large planted flight, it will be chewed upon; when I open a side breeding cage door and turn my back, within 15 seconds, up pops an Amboina King on the perch inside the open cage. At least as handfed parrots, which is my only experience, these guys are smart — not the sort of breeder bird one would want to give an open door and time to use it.

So, as expected, it was about 30 seconds after my wire cutting that Ohia walked down the length of his perch and into the smaller cage of the female king. There he basically ignored her, flew down to sample some leftover tidbits from the morning feeding, and settled in on his "new" branch to sun. An hour later I came back and she was over in his cage on a back perch. This was how they lived for the next five months, in a two-cage "condo" with two sets of food and water dishes. I have also used this technique successfully for introducing Amazon pairs.

Ohia and Maile were seldom sideby-side. He would be on the front perch, she on the back, or they would share opposite ends of the same branch sometimes. But they went back into their own cages to sleep.

In March of 1996, I completed the construction of a 25 X 20 foot tree-planted free-flight area in the center "courtyard" of my 10 breeding cages. Each aviary had an exit by which breeder pairs could be let out to fly, chew, play, and interact in the common space. Mulberry, Kukui nut, cinnamon and ornamental trees, palms, bushes and such were cultivated in every nook and corner in this flight to maintain visual privacy spheres and provide green edibles for the hookbills.

It was with pride and excitement that I opened the front door on Ohia and Maile's cage to release them into the main aviary where they were to live permanently. Amboinas are not overly destructive to foliage and with an abundance of rotated potted plants and leafy cut branches brought into the aviary for extra cover and fun, the growing plants seemed to continue to live nicely.

Zoom! Ohia was out the door in a flash as if he had been eyeing all that greenery for years.

Maile took the better part of 15 minutes to leave the security of the holding cage and fly to a new spot on the threshold of the aluminum door. Then she too, was out.

It became immediately obviously in the large planted environment that this hand-fed hen had never been properly fledged as a chick. She was clumsy in her landings, could not pick a spot amidst foliage and land upon it, and was totally surpassed in speed by her mate who had never been fully clipped and grounded. As breeding season approached, this became a disadvantage. The older male would start after his hen and she would be unable to keep up. His exuberance would turn into aggression, and in the last week of March, I had to separate him into a side cage to give her a rest.

I decided to keep him isolated from her until I saw some indication that Maile wanted to approach him sexually, or took an interest in one of the two nest boxes mounted high up on the south wall of the aviary. It may be noted that I usually do not have to net the parakeets in the large planted flight. Instead, food dishes are placed inside the side cages and the doors left

open. All I need to do is sit down and observe when the desired bird or birds enter the holding cage to nibble, then shut them inside.

By late summer of 1996, Maile was turning into a strong, able flyer. Her one bent leg made it harder for her to land on sharply angled branches or the bark of upright logs. She now could gain top speed going round and round the large flight and could pull up for a rocket stop without the lame leg giving out beneath her. I also noticed her color was molting out distinctly brighter. This large environment has no roofed areas. The birds living out in the free flight are exposed to sun and rain through shelter on the trees. They have the option to go into side covered cages if it rains or the wind blows, and some will do so during dull wet days, but they always choose to sleep under the open sky of the wire flight.

Ohia and I had been buddies for six years by the spring of 1997. He would take walnuts or macadamia nuts from my hand, givé me the same old kisses, and if really excited, flash his eyes and bob his head sideways back and forth making the whistling "choo-chee, choo-chee, choo-chee" noise. I have since learned this is part of the courtship of a male *amboinensis*.

What I did perceive, however, was that such interactions would get in the way of natural mating behavior between Ohia and his hen. By March 1997 as the breeding season approached, any teasing or interplay between Ohia and me would result in his taking out after her in aggression. Such displacement behavior could be brought on by my talking to him or even making eye contact with him. I resolved to stay out of the aviary and stop interacting with him.

During the next month he and she became increasing close, flying and screeching together in a curious courting game. The male king would take off after the perched female, but instead of attacking her, he would swoop low past her. She would immediately take to wing to follow him. He would circle the entire aviary once she was in pursuit and then land on an open horizontal branch. Immediately behind, she would land on the same branch, bow down low, and he would

Great things come to those who wait!

FREE Incubation & Hatching Video



Introductory Special: Buy three 20 lb. bags of any ZuPreem Avian Breeder Diet and get a copy of the video Lessons in Incubation and Hatching, by respected aviculturist Rick Jordan. This video is a great overview of the basics of incubation and hatching. \$29.95 value.

ZuPreem Fruit Blend

Now Available in Breeder Formula!

ZuPreem Avian Breeder Diet features and benefits:

Available in three sizes:

Cockatiels (Small)
Parrots & Conures (Medium)
Large Parrots (Large)

Higher levels of protein, fat, and calcium than the maintenance formulas of ZuPreem Avian Diets. Money back guarantee if you are not completely satisfied.

For your free video, Rick Jordan's Lessons in Incubation and Hatching, cut and send labels from three (3) 20 pound bags of ZuPreem Avian Breeder Diet along with original sales receipt(s) and \$2.95 for shipping and handling to:

> **ZuPreem Video Promotion** PO Box 2094 Mission, KS 66202

Include your name, mailing address, and phone number with the three (3) labels along with original sales receipt(s). Offer not available to ZuPreem distributors or retailers. Limit 1 video per household. Void where prohibited. Offer ends 12/31/1998. For more information about ZuPreem Avian Breeder Diet call ZuPreem Customer Service at 800-345-4767.

Video Produced By Bird Lady Productions: utahjungle@aol.com.

begin his swaying "choo-chee" whistle. Then he fed her.

The first time I saw this from a hidden spot behind one of the side cages, I tiptoed away down the driveway and let out a tremendous whoop! (Funny how in aviculture, the little thing can be so rewarding. . .)

On March 18, that spring of 1997, Ohia attacked me. I was in the aviary feeding and without thinking made eye contact and uttered a short little imitation "choo-chee" whistle. He went right at my face. Fortunately, this kind of occurrence had happened to me before with other parrots, and I have a very spontaneous ducking mechanism. But my temper flared and I shooed him away. As the shock wore off, and I left the flight cage, I thought "All right! That's the way it's supposed to be."

On March 20, Ohia attacked Maile, and on the 22nd he did so again. To temper such aggression, I make the decision to isolate and net him and went ahead and clipped the four strongest flight feathers on each of his wings. This effectively cut his speed back 25 percent but did not inhibit his flying around with the hen. On April 9, I spotted Maile in one of the nest boxes. The next day I saw him feeding her in the mulberry tree. On the 14th, I heard the two birds again spatting; then on the 17th I saw them copulating. I was so enthralled, I could hardly believe my eyes

April 19 there was no sign of the female in the flight. Then on May 1, I discovered a king egg broken and dried out on the ground in front of the elevated nest box. Dale Thompson informed me that it was broken in the nest box by the hen's inexperience, dried out and stuck to her feathers as she left the box. As I had no intention of invading her nest or interrupting her by going into the box, I did not know what else was inside.

The 3rd of May, Ohia again attacked me. This time I congratulated him as I beat a hasty retreat letting him know he had "driven" me away.

The 12th of May, by my calendar, Maile was due. But I did not hear the first faint feeding peeps until May 15. Listening carefully at the back of the box, I heard two distinct decibel tones.

The eggs were fertile! She had two living chicks, and by the looks of food consumption, was feeding them.

May 18, Maile came out for the first time in weeks, at least to my sight. I hurriedly got the screwgun and checked the back of the nest box two golf ball-sized amboinensis chicks with food in their crops were wrapped around each other in the 8-inch square bottom of the nest box. They were a bit filthy as mom had been defecating in the box, but I left well enough alone and closed it all up tight. The next day she was out again to feed; but this time the cock bird entered the box with the babies. My heart skipped a beat as I waited to see how he would react, but he was fine with them.

An interesting thing happened the next day. Whereas the Amboina Kings had been gorging daily on fresh fruits and veggies, cooked rice and beans, they had also been eating the seeds of the papaya halves for weeks. This day they began to eat the fruit pulp and leave the seeds. It fascinates me how breeding parrots will pick and choose what they need to nourish young ones when offered a wide variety of foodstuffs.

On May 28, with the hen out of the box longer each day, I made the decision to pull both chicks for handfeeding as they still had only half-full crops and were putting on weight more slowly than I would like. They were 14 days old and their eyes were opening. I would have preferred to leave them another week, but this young hen had done a most wonderful accomplishment, and I felt it was enough. Next year she should be more experienced and better able to feed for three or four weeks.

The babies were placed in a towellined basket and fed when their crops had emptied about 80%. I prefer to put first commercial formula feeding into a crop which has partial remnant of the parents full flora and enzymatic secretions, etc. I fed the chicks every four hours with formula fortified with a salting of spirulina and mushed papaya pulp. Both were closed-banded with 9.5-mm rings.

Feedings progressed normally; the chicks began to feather out between the second and third week of June.

They were placed on six-hour feeding. Weaning commenced at about eight weeks, yet I kept them on four times per day feeding intervals to maintain food in the crop at all times. This is an optimum way to feed and raise many parakeets. Fast-fledging parrot species in the wild are continuously packed full by parents round-the-clock. By emulating that behavior, it minimizes the possibility of stunting provided the chicks are kept at proper temperature and given adequate formula. Truly the of handraising quick-maturing psittacines species should not be undertaken by those hobbyists who insist on getting a full night's sleep. I sleep in a cabin with the babies and am always awakened by hungry cheeps in the night — sometimes at two, sometimes at four, etc.

The two fledglings were 90% weaned by the third week in July. They were delivered to two different pet shops which had reserved them long before. Both shops I have known for years and trust. The bright red, blue and green birds found private homes within two weeks of arrival and remain happily settled.

Meanwhile, I am the proud keeper of a proven pair of hand-fed domesticraised Amboina King Parrots. And, for the first time, I feel I really deserve to call myself an aviculturist.

Now for the future. As the 1998 breeding season commences; Ohia and Maile have displayed a much stronger pair bond. He gets jealous if I even approach her; taking nuts from my hand is about as close as he allows. I anticipate it will not be necessary this year to clip the male's wings to curb over-zealousness.

In conclusion, I believe that a large cage space allowing these parrots to turn around in flight is essential to permit certain flying aspects of their courtship ritual. This is even more important if the male is older than the hen (or vice-versa in female-aggressive pairs) or if the pair bond is still weak.

Secondly, I feel the patient encouraging of hand-fed psittacine birds to become successful breeders is one of the most critical tasks facing aviculturists of our era. The next step for Ohia and Maile is to get them to raise their own young to fledging.