## Three Bolborynchus

by Matthew M. Vriends, Netherlands

hese small, charming parakeets with their wedged, long or short pointed tails and thick stubby beaks (from which their scientific name arises) are extremely popular in their native land and in aviculture. They are friendly and peaceful aviary inmates that are not adverse to a "snow bath" which is not surprising in view of their natural habitat at 8,200 ft. (2,500 m) in the Andes.

The birds nest in earth tunnels about 6 ½ ft. deep with a chamber or two at the end, about 10 in. (25 cm) in diameter. The eggs are laid and incubated in one of these chambers. Unfortunately, we know little more about the lifestyle of these little hookbills. The Lineolated Parakeet, however, is an exception in that it does not burrow but raises its family in a hollow tree limb. All the species mentioned in this article, though, will use a nest box in a roomy aviary.

#### **Selection of Breeding Pairs**

It is important that you acquire a true pair. Although the sexes are very similar, surgical sex determination is not recommended. Research has shown that these birds are very sensitive to this procedure, especially *B.orbygnesius* and *B. aymara*. Some species show a slight dimorphism, the Lineolated Parakeet and the Barred Parakeet, for example. The wing and body feathers of the hen have narrower edges and the back has less black. This is also true of the tail feathers. Sometimes there is no black at all in the tail.

The best way to acquire true pairs is to place a group of birds together in an aviary and allow them to pair off. Members of this genus usually get along well with their own and related species so that this can be done without too much risk.

Over the years I have had the pleasure of many species in my aviaries. Yet, in the breeding season (and this can sometimes be wholly different) I am always somewhat afraid of egg binding—in spite of the fact that all hens are carefully monitored (unknown to the birds) twice per day by my bird attendant who works about eight hours per day. Hens suffering with egg binding can, in my experience, rarely be saved. Thus, birds which are too young should never be mated up. I give birds under 14 months no possibility of going to nest by giving them only large sleeping boxes. During the cold, short days, breeding is generally far from their thoughts.

#### **Housing and Nest Boxes**

Good breeding results are achieved in nest boxes with a height of 12 in. (30 cm) and a floor area of 8 X 9 in. (20 X 20 cm). These boxes are divided into two parts with a false floor about 6 in. (15 cm) high. The lower chamber can be reached by the birds through an opening 2 3/4 in. wide in one of the back corners of the false floor. This chamber can, thus, be used by the birds as a nursery. A perch 2 in. (5 cm) in diameter and 10-18 in. (25-45 cm) wide is affixed just below the entrance hole to the upper chamber. Depending upon its width, the perch may be partly or wholly pushed through to the back wall of the upper chamber and affixed there so it cannot move. Place a strip of mesh or affix a few thin nails on the back wall above and below the

opening in the false floor to help the birds enter and leave. I recommend that you install a little inspection door in one of the side panels of the lower chamber. Use a mixture of sawdust, washed aquarium sand, and pine bedding as floor covering.

It is difficult to be precise about the breeding season for birds in this genus. I have had broods in April through July but occasionally also in November, December and January. It is best, however, to encourage the birds to breed from the middle of April to June. This minimizes egg binding (with the aid of a good diet and a proper room temperature, of course).

Only *B. aurifrons* seem to have a particular courtship procedure; most other species just puff out the neck feathers. Males of the Mountain or Golden-fronted Parakeets show their interest in a partner by increased gnawing on twigs and perches, mutual feeding, and seeking out nest boxes. It is therefore important to have a choice of boxes—at least two per pair—affixed at different heights and to different walls in the aviary and shelter.

#### Brooding, Hatching and Rearing

Although I have seen copulation take place on the nest box or perch several times—*P. aurifrons* even three times on the floor—one can assume that pairing takes place mainly in the nest box. Both birds spend a few days in the nest before the first egg is laid. They sit quietly, gnawing occasionally at the inner walls. They are very sensitive to disturbance at this time but become more tolerant after the clutch is complete. Once the birds start incubating, they are quiet and stop gnawing at the inside of the nest box.

The female can sometimes lay a remarkably large clutch, but the average is four to five eggs; incubation starts after the second or third egg is laid. The young hatch in 20 to 23 days and leave the nest six to seven weeks later, sometimes a little longer if the weather is cold.

I have found little information in the literature about the correct rearing food. I give my birds whole meal bread soaked in water and squeezed out, plus a daily dish of commercial rearing food such as CéDé or L/M's Universal Plus. Of course, they also get their seed mixture, a ration of bird pellets, and fresh greens and fruits (see species).

#### **Bolborbynchus Species**

Sierra Parakeet B. aymara: The color is mainly dark green. The forehead, crown, and upper section of the "ears" are brownish-gray. The remainder of the head, neck and throat is whitish-gray. The abdomen, the undersides of the tail coverts and the lesser wing coverts are yellowishgreen. The slender wings show a bluish sheen. The beak is whitish-gray, but somewhat darker in the hen. Ornithologists rightly find this bird similar in appearance to the Budgerigar, especially with regard to the tapered tail. Males usually have a darker crown and a silvery breast. Length: 71/2 to about 9 in. (19-20 cm).

Sierra Parakeets are native to the eastern slopes of the Andes from central Bolivia to northwestern Argentina and probably also to northern Chile. The birds live in groups, sometimes at over 6.560 ft. (2.000 m) in altitude. As they are common in the lands of the Aymara Indians, the German and Dutch names of the bird are Aymarasittich and Aymara parkiet, respectively: so is the scientific name. The birds feed largely on berries, fruits and seeds.

In 1959 the first specimens were brought to England by the well known naturalist and writer Gerald Durrell. They were kept in the parrothouse at the London zoo. They were remarkably tame and affectionate and immediately stole the hearts of the public.

With an outdoor aviary and a choice of nest boxes (see below) a pair of this species is almost certain to breed. Give them small sunflower seeds, millet spray and the usual parakeet seed menu as well as apples, grass- and weed seeds, berries, and so on. Do not, however, allow the birds to become too addicted to sunflower seeds. They are peaceful cage and aviary birds; many people like to keep one or more pairs in the house. They make reasonable pet birds with their charming appearance and their attractive finch-like chatter.

A good breeding pair will give the fancier enormous satisfaction. The female lays four to six eggs, 10 to 11 in exceptional cases. A 1 in. (2 cm) layer of humus laid in the base of the nest box is recommended. The nest boxes (8 x 8 x 12 in.—20 x 20 x 30 cm) with an entrance of 2 in. (5 cm) in diameter should be affixed about 6 in. (15 cm) from the floor. The incubation time is 21 to 22 days, and the young leave the nest at five to six weeks old. Apart from the short tail, they are very similar in appearance to the adults.

According to the literature, newly imported specimens of this species occasionally drop dead for no apparent reason. One reason could be the change from high altitude to a lower one, resulting in breathing difficulties. Thus you should take very good care of breeding pairs so that as many young as possible are reared in captivity. This species is worth it! During breeding the males should have access to their own sleeping boxes.

Mountain or Golden-fronted **Parakeet B. a. aurifrons:** In the male the forehead, the area between the eye and the beak, part of the cheeks, and the whole throat are golden yellow. There is also some golden yellow in the breast and flanks. The flight feathers are greenish-blue. Both sexes have a dark green back and a lighter underside. The yellow on the head is absent in the female but there is a small amount of yellow on the throat and breast. The beak is pinkish, and the iris is grayish-yellow. Length: 7 in. (17.50cm) including the 3.2 in. (8 cm) tail.

Mountain Parakeets are native to the Andean slopes of southern Peru, southwest Bolivia, northern Chile, and northwestern Argentina. They are found at relatively high altitudes in the mountains but also in bush land, sometimes reaching the coast. Since they also occur in agricultural areas, they can cause significant damage. They are also seen in gardens and parklands of urban areas, often in close proximity to humans. During the winter months, the birds often take refuge in thickly wooded areas.

The species is imported infrequently because of its high mortality rate. The birds are rather timid and not very loud. Supplementary food should include millet spray, hemp seed, small (dark) sunflower seed, safflower seeds, apples, grass- and weed seeds, pieces of carrot, bananas, oranges (half an orange spiked on a nail will amuse the birds) and a rich variety of green food.

Newly imported birds must be left in complete peace and quiet, otherwise they will refuse to feed. The birds are extremely sensitive to changes in air pressure, temperature fluctuations, humidity changes and stress. Many birds die within the first days or months from lung infections. The birds are active mainly during the evening or nights (if you leave a light on, that is). Kept in a quiet indoor aviary, a pair will sometimes breed. The female lays two to five eggs which are incubated for about 24 days. A Dutch aviculturist (Mr. A. Velding) has had a pair of these birds for about 10 years. They use a nest box 3 ½ ft. (1 m) long, 6 in. (15 cm) wide and high. The inside of the box is divided into four compartments, each with entry through a pophole. The two deepest compartments are obviously very dark and are used for nesting (probably reflecting the birds' preferences in the wild). The pair seems quite comfortable in the outdoor aviary. When breeding, the birds must be given adequate rearing food including soaked seeds (with some liver oil), soaked and squeezed-out bread, grass- and weed seeds, various fruits, berries and green food.

#### Lineolated Parakeet B. l. lineola:

The male is mainly green with black scallop lines along the head, neck, back, rump and wings. The wing feathers are black-edged. The eyes are

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# yellowish-brown, the beak is grayish-yellow, and the feet are gray-black. The hen is usually smaller, green with black markings on the back but these are less sharply profiled than those of the male. The tips of the tail feathers are less black and in some females the black is absent altogether. Length: about 6 ½ in. (16 cm) including the 2 ½ in. (6cm) tail.

Lineolated Parakeets are native to Central America from southern Mexico to western Panama. They are especially prevalent in the mountains and along the Talamanca Cordillera. They often travel in pairs but also in groups of 70 or more individuals. Because of their small size and cryptic coloration, these birds are difficult to observe in the wild. They live in wooded country interspersed with meadowland. They are even seen regularly close to volcanos.

These birds are usually available commercially and may be kept in aviaries with other small exotics since they are so peaceful and non-aggressive. They spend much of their time on the ground, both in the wild and in captivity, seeking seeds and insects. It is recommended that the flight floor be regularly (and deeply) raked and that the upper layer be completely changed occasionally to help prevent worm infestations. The worm eggs adhere to sand particles (literally dozens on a grain of sand). Obviously, a concrete floor is recommended as it is the most hygienic.

These attractive little hookbills are not at all destructive in their aviary: they climb slowly up the branchespreferably 1 1/2 in. (4 cm) in diameter or hang head downward in careful acrobatics. They are sensitive to low temperatures and must be kept in mildly heated indoor accommodations during the fall and winter. Supplementary food includes sunflower seeds, hemp seeds (not too much as it makes them too fat), all kinds of millet (including spray millet) and a rich assortment of greens. It will also do no harm to give a regular multi-vitamin and mineral supplement. With good husbandry, a pair should go to nest.

Matthew Vriends is a Dutch born biologist/ornithologist who holds many advanced degrees including a Ph. D. in zoology. He has written over 80 books on birds and other small animals. He has achieved many first breeding results in his large aviaries which house more than 50 species of tropical birds.

### Parrotlets: Their Identification, Care and Breeding

by Sandee & Robert Molenda Santa Cruz, California

elatively unknown 10 years ago, parrotlets are rapidly becoming one of the most popular parrots in aviculture. They are also one of world's smallest with only the African Pigmy Parrot being smaller. Being true parrots, they are most closely related to the large Amazons. Often confused with the Brotogeris genus, parrotlets can be distinguished by being considerably smaller and having short, wedge-shaped tails. There are three different genera of parrotlets: Touit, Nannopsittaca and Forpus, all of which are found in either Mexico or South and Central America. Since only Forpus parrotlets are available in the United States, no further mention will be made of the other two genera.

These tiny parrots are various shades of green with patches of yellow, gray and blue which identify the species. All parrotlets are sexually dimorphic. Identification of the male of a species is made upon the particular shade and

location of blue he possesses. The females are more difficult to identify so close attention must be paid to small details such as subtle changes in the shades as well as the distribution of yellow and green feathers.

The Pacific or Celestial Parrotlet Forpus coelestis is the most well-known and popular species of parrotlet. They are approximately 5 in. in length and weigh 30 g. In the wild, they are found from western Ecuador to north-western Peru. The males have a cobalt-blue streak of feathers extending from the eye as well as cobalt-blue on the rump and wings. Many females also have an eye streak as well although it is emerald green rather than cobalt. They have dark green backs and wings with yellow-green feathers around the face. The legs and beaks of both sexes are pink when hatched and gradually turn horn-colored upon maturity.

A subspecies has recently been rei-

