Breeding Parrotlets
An Overview
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Due to the increasing popularity of these charming, much sought after companion parrots, demand often outstrips supply. It is thus important that aviculturists know how to breed their birds in order to minimize importation from the wild. Although, due to the recent regulations, importation has come to an almost complete stop anyhow.

In the 1920s, most wild-caught parrotlets were imported into Germany, the Netherlands, Belgium, and Denmark; this gradually increased into the 1950s when almost the whole of western Europe and England were importing them. Unfortunately, in those early days priority was never given to the responsible captive breeding of the birds because they were usually easy to obtain or replace. So why would one “break one’s neck” trying to breed them?

Today, however, the situation is quite different. Because the supply of wild caught birds from their native countries is likely to dry up in the not too distant future, future demands will have to be met by captive breeding. Fortunately, most species are not yet directly endangered in the wild but, in spite of this (and rightly so), all parrotlets are listed under Appendix II of the Convention on International Trade in Endangered Species of Wild Flora and Fauna (CITES).

Anyone desiring to breed parrotlets must first decide which species they want to keep and breed. It is highly recommended that one starts with a minimum of three unrelated pairs of birds per species or subspecies. The three pairs must not be related in any way, so that the young produced from these pairs also are unrelated; in other words, we will have three groups of unrelated offspring that can be paired up.

Experience has shown that each pair of birds are better housed in their own breeding cage or (even better) aviary. In this way it is less difficult to leg hand (diameter 4 - 4.2 mm) the young accurately and to keep an accurate record. Without accurate records (a card system, for example) it is impossible to maintain a healthy, noninterbred series of breeding pairs. Don’t forget that many parrotlet species, especially hens, are quite difficult to distinguish, which can lead to unwanted hybridizations if inadequate care is taken.

Always take care in determining the species (or subspecies) you obtain; don’t just study illustrations in one book, but check various publications (i.e. Forshaw’s Parrots of the World [3rd edition], Alderton’s The Atlas of Parrots, and Juniper and Parr’s Parrots). My book The Parrotlet Handbook (fall, 1999, Barron’s) will show many species and subspecies in color as well but most of these birds are captive-bred and therefore sometimes look nicer when compared with wild-caught specimens.

Due to the difficulty in determining the various species (and subspecies), it is recommended that beginners start with three unrelated pairs of Pacific or Celestial Parrotlets Forpus coelestis. Apart from the re-discovered subspecies F. c. lucida (see Molenda’s article in Watchbird, Volume XXII, No. 5; September/October, 1996, pages 20-22), which is rarely commercially available, the Pacific Parrotlet has no subspecies to cause confusion.

We must set out to pair up pure birds, so that they in turn produce pure homozygous offspring; pairing...
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Protecting Parrots
“Parrots are the most endangered birds in the world. We’ve lost 30% of the wild parrot population in the past 25 years. That’s 10 species. . . . It’s a matter of time before some of the remaining species are extinct, unless we save them.”—San Diego Zoo

Parrots are the most intelligent birds in the world, but we seem to have lost our ability to protect them. This is a moral imperative, and one we can fulfill by working together.”—Stephen Budiansky, *The Covenant of the Wild*
between nominate and subspecies is taboo. Pacific Parrotlets, moreover, are easy to obtain in the U.S., Canada, and Europe and are thus readily available even in the yearly breeding season. Several color mutations are available in this species (which are given full attention in above mentioned book). In order to keep specific color mutations pure, they must be paired carefully, and it may sometimes be necessary to inbreed them. For this reason, I would advise beginners to concentrate firstly on the “normal” wild colored birds (but be careful that you use genuine wild-colored birds that are not split with a certain color mutation).

Another particularly attractive species, without subspecies, is the easy to recognize Yellow-faced Parrotlet Forpus xanthops. This species is extremely colorful, and is not especially difficult to obtain in Europe. In the U.S. and Canada it has been intensively imported during the last five or so years and has been bred widely. The future of this species in aviculture looks rosy.

All of the other species have one or more subspecies, some of which are extremely difficult to distinguish from each other. If you want to breed these species/subspecies (which is quite possible), you must be very familiar with the various subspecies, so that false pairings and inbreeding can be avoided. At this point I will stress again, that only strict selection of pairs of pure nominate or subspecies can guarantee the continuing existence of the pure form.

For example, a nominate hen of the well-known Green-rumped Parrotlet, Forpus passerinus, paired with a cock Blue-winged Parrotlet, Forpus xanthopterygius, will produce offspring that are not only racially impure, but they also closely resemble the father Blue-winged Parrotlet. Inexperienced aviculturists would often mistake these offspring for pure Blue-winged Parrotlets. Such hybrids have demanded high prices when sold as “subspecies of the Blue-winged Parrotlet.” Such fraudulent representations have no place in the avicultural community.

It is also very advantageous to know if the birds you are considering are wild caught, or captive bred. It is not possible to estimate the age of wild caught birds, and hens must be at least one year old before they can be safely bred. Additionally, older, wild caught birds are not always anxious to pair up when placed together in a cage or aviary (see below). Such difficulties are minimized if you use captive bred stock. I would therefore advise beginners to deal only with captive bred birds, using a trio of unrelated pairs, in order to build up a line.

Selecting Breeding Pairs

Parrotlet partners are very faithful and devoted. This is very easy to observe in their behavior. Should one bird fly to a perch, or nest box, the other will follow almost immediately. If it flies to feed or drink, the partner will join it without hesitation. The birds will frequently preen each other mutually. Though they have their occasion-
or aviary. Needless to say, best results can be obtained when newly formed pairs are not in the position to see, or hear, any of their previous partners — better to be safe than sorry.

**Pairing Up**

If you possess two birds of opposite sexes that you wish to pair up, then it is best to place them together in a cage or aviary, late in the afternoon. The birds will still have enough time to accustom themselves to the new surroundings, to find the food and water dishes (but keep an eye on them) and to find a suitable roost before darkness sets in. The following day, you will be able to see if the birds settled together and tolerate each other. If one of the pair is acting aggressively to the other, it is best to remove the aggressor from the cage (or aviary), and to try again after three days. In the meantime, the “underling” will have had time to completely familiarize itself with its surroundings, and will be in a better position to defend itself. In my experience, such a re-introduction rarely results in serious problems and any minor skirmishes will soon diminish. After a week, a pair will be inseparable and will have become “real lovebirds.” Should they fail to hit it off, then you have no choice but to separate them, and try the same process again.

In general, young parrotlets are ready to accept each other within a day and once they start preening each other we can rest assured that we have a new pair. However, this does not necessarily mean that the pair will start reproducing immediately. We should give them a little time before introducing nest boxes.

To sum up: the best breeding results are likely when each pair is housed in its own cage or aviary, without the presence of other birds (including other species). If you have a number of flights next to each other, the adjacent walls should be shielded with vegetation, wood barriers, burlap, or similar, in order to prevent birds injuring each other through the mesh. For example: the Musschenbroek’s Lory, *Neopsittacus musschenbroekii*, and parrotlets (even smaller in size) will not release their grip once they have their beaks stuck “into their prey.”

Experience has shown that Mexican
Parrotlets and Yellow-faced Parrotlets breed most successfully in an aviary. That applies also to the other species, but most of them will also breed successfully in a roomy breeding cage.

**Nesting Facilities**

Wild parrotlets are not particularly fussy with regard to nesting sites; they seem to be easily pleased. In the wild I have found nests in hollow fence posts and holes in walls, as well as in tree hollows. My cage birds are always given a choice. A hollow birch stump (or other “natural” nest box), or a nest box made with planks. Strangely, preference is often shown for the latter. The main advantage of a “home-made” nest box is that the eggs are seldom damaged, even when the parent birds storm tempestuously inside – which they do frequently and may scare the living daylight out of the inexperienced breeder.

Nest boxes made with one-inch thick oak or beech are best as this wood is durable enough to withstand the gnawing of the birds for some time. Such boxes provide more room for the nestlings, and for the father bird when he spends the night with his mate. Vertical nest boxes do not provide adequate space, so horizontal models are better. Additionally, the latter are easier to service when, for example, you may want to hold the hen back with a piece of cardboard in order to remove the babies should you wish to handfeed them.

Unrestrained hens, unfortunately, may have the habit of attacking their young if you try and remove them from the nest. You should ensure that the nest box floor is provided with a shallow cavity, so that the eggs cannot roll about and can be fully covered by the brooding bird.

Natural nest boxes also, as you will imagine, have their good points; the interior will stay warm far longer than in a board nest box. However, because the natural nest box cools slowly and gradually (which may be a problem in the warmer days of summer!), it could cause desiccation of the egg membranes. Natural nest boxes are quite decorative in the cage or aviary, but they are so heavy as to be almost unhandleable. Examination of the interior is also difficult to perform, without sending the birds into a fit.

As nesting material, we should provide strips of willow bark (fresh) and somewhat moist humus, that can be collected from rotting tree stumps. I don’t recommend cedar bedding, wood shavings, or sawdust, as small particles can lodge in the eyes of the nestlings, or adults, and promote various infections. And that is without mentioning respiratory problems.

From the above, you will have realized that parrotlets don’t collect their own nesting material like the various lovebird species of Africa do. You must place the nest material in the nest boxes yourself, pressing it down into the cavity with your fist.

The dimensions of the nest box can be more or less the same as those required for the Peach-faced Lovebird, but “the other way round” – height 25-30 cm (9.8-11.8 in), width and depth 30-35 cm (11.8-13.75 in); diameter of entrance hole 4-5 cm (1.6-2 in). The entrance hole is best situated in the upper, right hand corner, with the nest cavity on the left side of the floor. A few pieces of batten attached to the inside of the box just below the entrance hole will make a “ladder” to enable the birds to get in and out easily.

If you have battery breeding cages (several cages stacked together in a breeding room), it is necessary to mount the nest boxes on the outside of the cages, to leave as much room as possible inside the cages; in small cages parrotlets are more likely to squabble than in runs or aviaries. The nest boxes are best fixed to the front, upper corner of the cages, with the entrance holes facing the cage backs. In aviaries where we can use natural or manufactured nest boxes, the boxes can be affixed as high up as possible in a light area. If possible, the entrance hole should face south. All of the nest boxes must be hung at the same height; if you don’t do this, you will notice that the birds will choose the highest boxes, making the lower boxes a waste of time and expense. However, I would like to advise again to keep only one breeding pair per run.

Don’t be surprised if the birds (especially the Green-rumped Parrotlets) push the nesting material you supplied into one comer of the nest box, or even toss it out altogether. The nesting material must be returned because youngsters reared on the bare floor can develop orthopedic problems (especially so-called rigid legs: legs that are spreadeagled at right angles to the bird’s body and the joints seemingly fused; the youngster is unable to bend these joints due to close sitting of the female parent on a shallow concave, with too little or no nesting material beneath the chick to allow for the pressure).

Species, such as the Mexican...
Parrotlet have a habit of pushing their eggs beneath the nesting material. In such cases you have provided too much nesting material, and you should remove enough to expose the eggs so that the birds can brood properly. Take note of the habits of the various pairs so that you know how much nesting material to provide for the next round of breeding. Fairly coarse humus is good as it is difficult for the birds to bury the eggs.

**Pairing, Incubation, and Rearing**

If you possess a harmonious pair and provide them with a roomy breeding cage or aviary, with the right kind of nest box, chances of successful breeding are high as long as the temperature doesn't fall below 15°C (59°F) and the humidity lower than 70 percent. A stimulus at breeding time is the addition of vitamin E to the soft food which is fed almost exclusively to the young for the first few weeks. A good, commercial vitamin/mineral supplement is adequate. This soft food can be given throughout the year, but if you want to use it just as rearing food, you must ensure the parents have access to it at least 6-8 weeks before the breeding season commences.

In aviaries and runs, nest boxes are usually inspected (by the parents-to-be) at night; boxes in breeding cages can be inspected also during the day, especially late afternoon and evening. The cock takes the initiative and tries to entice the hen into the nest box. After the courtship display, and once the pair stays for prolonged periods in the nest box and the male feeds the hen with regurgitated food, we can consider that the pairing is “clinched.” The first egg can be expected in a few days. However, don’t think that the cock feeding the hen is necessarily a sign of imminent breeding; this can occur at any time, both in captivity and in the wild.

Under normal circumstances it is the cock bird that begins the courtship display. The wings are held out from the body at the “elbow” while the remainder of the wings are pressed tightly against the body. This behavior is repeated slowly, but the wings can also be quickly raised and lowered as though the bird is trembling. The wing
movements are usually accompanied by bowing movements towards the hen. The hen, in response, may drum her beak against the branch or perch on which she is sitting. The male, also, sometimes may perform this beak drumming.

Occasionally the cock may approach the hen with tripping steps; but this is only possible when there is adequate room on the branch or perch. Sometimes the whole dance may be performed on top of the nest box or, rarely, on the ground. In the wild, I have never observed the courtship display performed on the ground in any species. If the hen is ready to mate, she will make little bows, and raise her tail. The cock will then raise one of his feet on to her back while using one of his wings to hold her body; the second foot is held fast to the perch in order to maintain balance. Copulation is not via "back-sitting," but "sideways" for parrots a somewhat unusual posture.

Eggs are usually laid every second day, but sometimes a hen may lay daily. I have observed this in Mexican and Yellow-faced Parrotlets. The usual clutch contains 5-6 eggs, rarely more, and seldom less than four. Exceptions include the hen Pacific Parrotlet, which can lay up to 10 fertile eggs.

Incubation (brooding) is carried out by the hen and begins usually after the appearance of the second egg, so that the young hatch in the order in which the eggs were laid. There can, therefore, be a considerable time difference between the laying of the first and last egg, especially in large clutches.

However, under normal conditions, eggs take about 21 days to hatch. As we have stated, hens brood alone and, during incubation, rarely leave the nest. During this time she is fed regularly by the cock bird. During the day, the cock stays close to the nest box, ready to defend it fiercely should danger threaten. This is particularly applicable to wild birds. The cock frequently spends the night in the nest box with the hen and, occasionally, may brood the eggs for several hours. Some hens, however, will not allow this to happen.

Brooding hens have white, fluid droppings which they usually pass only once per day, and then when they leave the nest box to feed. This is the best time to inspect the nest.

Should the clutch be too large, that is to say at least six eggs, then the eggs should be candled to assess any that may be infertile. Infertile eggs must be removed. A clutch of five eggs is ideal for brooding. With more than five, one or more of the eggs may not be covered during incubation, will cool down, and the embryo will die. As the eggs are frequently turned, interchanged, and moved by the hen, this can mean that a high percentage of embryos can be lost when the clutch is too large.

On hatching, the deaf, blind, lightly-downed chicks, frequently herald their arrival during the day with their loud cries. The young of Blue-winged, Green-rumped, and Spectacled Parrotlets are especially lively, and create pandemonious sounds a few hours after hatching. From that time, the nest must not be disturbed for the first few days. It is important to supply adequate rearing food, millet spray, germinated seeds, and finely chopped greens at this stage.

At the age of about eight days the young will be large enough to be banded. Once the father bird is banded, the young will stop begging and will no longer be fed. If the parents start making obvious moves to nest again, the chicks must be removed from the cage. The father bird should suddenly turn his back on his son(s) this can happen especially in those species with conspicuous blue patches in their plumage, such as the Pacific Parrotlet. Young hens, however, are seldom attacked by their father.