

fronted amazon is a cavity nester. In order to locate nests, collectors look for holes in tree trunks that have insects swarming around the opening, adult birds entering and leaving the cavity, or audible vocalizations from within the cavity. In the 1980s, collectors cut down nesting trees to collect the nestlings. However, Argentina's sustainable-use management program prohibits this practice, and project staff train collectors to use lassos and harness systems to safely climb nest trees to collect the birds. Once at the opening of the cavity, collectors use a weighted string to determine the depth of the nest. When the depth is determined, the collector uses an axe or machete to cut a hole in the side of the tree in order to remove the nestlings. The nestlings are placed in a bag and the collector reseals the new opening with mud and sticks. A plastic identification label, indicating the unique number of the nest, is nailed to each harvested nesting tree. There is no evidence, since full implementation of the project in December 1997, that opening and resealing a hole near the nest has caused mortality of the remaining nestlings or failure of adult pairs to use the site in subsequent years. Project staff are continuing to collect these data.

After harvest, the nestlings are placed in a holding area until they are purchased by a broker. The holding areas must be dry to avoid fungus-induced respiratory and skin infections. We observed several different holding areas. The most common was a shallow hole dug into the ground with wooden planks over the top to keep predators out and maintain darkness typical of the nest.

The birds are hand-fed at least three times per day. The feed used is a commercial corn-based mash produced specifically for parrots by a pet food company in Buenos Aires. Project personnel provide the feed and feeding instructions to the collectors. The mash is mixed with water and fed by hand or spoon. On the site visit, we saw no evidence of force-feeding. Collectors and their families often supplement the commercial feed with local fruit and seeds that the birds would have been likely to receive from their parents.

Brokers prefer to purchase nestlings when the birds can feed independently. In addition, frequent handling of the birds is thought to tame them. We did not see nestlings in the holding area resist handling. We saw no evidence of illness or injuries in the nestlings in the holding areas, and collectors report very few mortalities. The nestlings remain with the collector 2–4 weeks, depending

on the age of the birds at the time of collection.

Project staff members (biologists or field technicians) visit each collector before the arrival of the broker. They affix leg bands (open metal bands that once closed can only be removed by breaking) with the code AR or ARG and a unique identification number. Only staff members may affix leg bands, reducing the likelihood of injury during banding and ensuring that only legally acquired birds are banded. The birds are weighed, wing length is measured, and the general health of each bird is recorded. Injured birds are treated, and most injuries have been superficial around legs or toes. If the project staff were to observe evidence of a high mortality, injuries, or more birds collected than the quota allows, the collector might have his quota reduced the following year or be suspended from the program.

Juveniles are harvested from May through July in the citrus groves. Project staff members live on the properties and accompany collectors in every stage of the trapping process. Snares made of reeds are set at dawn before the birds arrive to forage in the citrus groves. The snares are set in the branches of the citrus trees to ensure that only birds that are actually foraging are caught. If a parrot is captured, its loud vocalizations alert the collector to the capture. In rare instances, other species are captured (e.g., passerines); however, mortality is reported to be minimal. Every trap is inspected and disarmed within four hours of being set. The parrots usually retreat to the transitional forest by midday to escape the heat. No blue-fronted amazon has required euthanasia as a result of injuries sustained from the trapping process for juvenile birds since the project's inception.

We visited the holding facilities of three brokers. Each facility was indoors and contained stainless steel cages either suspended from the ceiling, on legs above the floor, or mounted on the wall above the floor. The cages are constructed of wire and contain water and feed pans. Each facility had windows providing sunlight, ventilation, drainage, and a source of clean running water. Depending on the size of the bird, up to 25 birds can be housed in each cage. The same commercial diet provided to collectors is provided to brokers. Brokers typically maintain the birds for less than 2 weeks. According to the application, cages at the assembly area may house up to 30 birds per cubic meter. We believe that, particularly for nestlings, such space is more than adequate. Other housing conditions, such as ventilation, lighting,

running water, and sanitation, also appear to be adequate. Each assembly center is required to have a veterinarian available, who is responsible for animal health and official reporting.

Transport from the point of capture to the quarantine facility in Buenos Aires, road transport in excess of 500 kilometers, and air transport, require the use of crates built to IATA (International Air Transport Association) standards. Air circulation, crate handling, and other conditions for transport within the province of origin are addressed in the application, but do not have to meet IATA standards. It is important to note that *Standards for Humane and Healthful Transport of Wild Mammals and Birds to the United States* (50 CFR 14.105) prohibits the import of unweaned birds. Subsequently, we would not allow the import of birds into the United States that still require hand-feeding. However, during our visit to collection sites and broker facilities, brokers noted that they only purchase birds from collectors when the birds no longer require hand-feeding.

In a letter dated September 2000, the applicant reported that mortality during capture and transport is less than one percent. The nestling mortality, primarily during housing, in 1998 was 3.2 percent, 22.5 percent in 1999, and 4.2 percent in 2000. The high mortality in 1999 was due to Pacheco's disease at a quarantine facility that killed 95 percent of the birds at that facility. After that incident, Resolution 1955/99 was passed, that suspends from the program any exporters who experience mortalities greater than 25 percent in one season. Other causes of mortality that have been experienced in the program were not reported to us, although the application indicates that such information is reported to the Wildlife Office. No numbers were provided on animals that were sick or injured during the capture, housing, and transport process. As a condition of program approval, we would require that the annual reports include figures on disease, injury, and mortality during capture, housing, and transport. We would also require that the applicant provide training to program participants to ensure that appropriate parrot husbandry (including diet and basic animal health care) is provided to all individuals who will be responsible for the birds.