acclimation of birds in captivity

by Kenton C. Lint Zoological Society of San Diego

In the past, the transportation of birds to Europe and to the United States from distant lands was a precarious undertaking, often encountering prolonged journeys by sea on slow cargo boats and under the worse possible conditions. Many times birds were netted, trapped and shipped before they had become accustomed to an artificial diet. Packed in unsuitable crates, with little light to see food or water provided enroute, hundreds of birds arrived dead, starved to death. Other shipments were stowed below deck in stifling conditions or stacked on the open deck, exposed to inclement weather or tied up in tropical ports where heat exhaustion takes its toll.

Today, conditions have improved with most shipments arriving by air cargo on clipper airliners. Trappers and exporters have been instructed to ensure birds are accustomed to being caged and are feeding on artificial food before being dispatched. Suitable traveling boxes have been designed in which the bird can move freely, have adequate ventilation, and which can, if necessary, be properly cleaned during transit. Hygenic food and water containers are provided. Adequate supplies of suitable food accompany each shipment and instructions for feeding and care during transit are clearly marked on each box. Traveling time has been reduced to a minimum and even from the most distant countries, the duration of the journey seldom exceeds 3-4 days.

On arrival, they are quickly and efficiently handled by the ground crew and at most airports there are now special accommodations in which they are kept until collection by the importers or placed in government approved quarantine stations.

Quarantine stations are modern, well-equipped and sanitary for proper acclimatization of birds of all kinds, particularly for delicate bird species. The new arrival requires a great amount of care and the attendant must understand some of the problems it faces and has faced. Curators and experienced ornithologists should be contacted when special problems arise during quarantine periods as both are eager to share their accumulative knowledge with government colleagues.

One must remember that most new birds have been shipped under several stress conditions until arrival at the quarantine station. They have met with alien odors, poor ventilation, unusual noises and food, and have been left to stand for long hours on airline runways or train platforms, often experiencing a major climatic upheavel in the space of one day. Security, a clean cage, and adequate food and water are necessities.

Delicate and aggressive species must be housed separately, even in quarantine, to prevent mortality. Many birds die in quarantine because specialized

diets are unknown. Attendants provide large amounts of commercial foods, which new birds, however hungry, may refuse to eat immediately, or even for weeks. Here some flexibility is essential and the attendant must learn what foods the bird will eat and so gradually modify the diet.

Even for species notoriously difficult to establish in captivity, sensitive and intelligent care during the first 30 days will greatly enhance their chance of survival.

When new birds are imported into the United States, certain requirements are necessary.

It is our belief that all birds should be fed as early as possible in the morning. Attendants should start cleaning and feeding birds at 7:00 a.m. All birds should be fed by 8:30 a.m. The insectivorous birds should be fed first, the seed and grain feeders secondly, and the aquatic or waterfowl later.

Feed acceptance – the ingestion of food is a very complicated process and involves the sensory organs and many physiological processes. Recognition of food and hunger are closely associated with food acceptance. Other factors may be listed as follows: color, odor, flavor, form, time of feeding, social factors, light, methods of presentation, including quantity and frequency of feeding. The color of the diet may enhance its acceptance. For example: ducks, cygnets, goslings, pheasants, partridges, quail, peafowl as well as ostriches, emus, and rheas are attracted by green colored foods. Cassowaries, birds of paradise, cotingas and tanagers are attracted to yellow, red, blue and purple colored fruits. Examples: papaya, loquats, figs and guava fruits. Gallinaceous birds drink more water from blue colored containers than from clear containers. Gulls, terns, pelicans, cormorants, initially peck at red and orange colors in food or water containers when adverse to feeding in captivity and in unfamiliar quarters.

Food odor is not usually important, but some vultures, hoopoes, woodpeckers, and kiwis are believed to employ odor in food location.

The use of taste in food preference of birds also appears to be modest. Most birds have comparatively few taste buds, for example, jungle fowl have approximately eight, pigeons and bullfinches have a maximum number of 50-60 taste buds, parrots 400 as compared to 14,000 taste buds in a rabbit and 10,000 taste buds in man. This ability to discriminate substances may be important in feeding behavior when commercial diets are not fed.

The shape, size and form of the food given to the birds is important. Pelleted or compressed rations have not been widely accepted by exotic trapped birds. Certain feeding drives need to be met. For example,

the tearing beak of birds of prey, seed-cracking beak of parrots, cockatoos and finches and the bill strainers of flamingos underwater to assimilate natural feeding.

The species-specific diurnal or circadian activity cycle is very important as it relates to the time of presenting food. Nocturnal forms such as owls and frogmouths, initially may find all food unpalatable until darkness has set in. Many birds feed only on live, moving foods in nature. Insectivorous birds may be gleaners (e.g. white-eyes Zosterops, wrens, tits) others may be aerial feeders (e.g. bee-eaters, rollers and drongos). Others are pursuers (e.g. fly catchers, phoebes, and kingfishers) and still others are probers (e.g. woodpeckers, creepers and barbets). This poses a difficult problem for quarantine stations and attendants to meet such a variety of feeding habits.

Social factors affect the attractiveness of food to the birds. It is a well-known fact that quail and jungle fowl kept in groups will eat more and gain more weight than when fed in isolation. Some newly captured birds are readily induced to feed when placed with others of their kind. When birds are kept in social groups, numerous feeding containers must be provided and spaced at different levels in the aviary to better meet the needs for separate species kept in the same pen that in nature dwell on the forest floor or in tree tops.

In many instances, low levels of antibiotics have been incorporated in the diets of birds but preferably should be avoided.

Tips and Ideas

- 1. New arrivals don't endanger your collection quarantine look for ticks, fleas, mites, worms, and get them accustomed to your type of food and water and build up strength.
- 2. Do you have mice and rats under control? Warfarin poison bait may be used safely outside of any bird aviary. Use bait boxes only mice and rats can get into and keep boxes sanitary. Free rodents spread all types of germs and will kill nestling birds.
- 3. Keep a night light burning in all bird buildings all night. If birds are frightened by mice, owls, fox, opossums, raccoons, they will fly around in the dark and injure themselves. This is why so many birds die annually and are found dead in the aviaries in the morning for no other apparent reason.
- 4. One half of the top of any aviary should be covered with plastic or wood to prevent predators, cats from disturbing birds while roosting at night.
- 5. It's wise to have a bird first-aid kit ready to go for patients use. Tape, cotton, alcohol, wood for splints, scissors may save a bird's life if you work fast.
- 6. When new bird arrives study the crate, look at food provided get a sample of droppings and examine it under microscope (cheap one will do) look for worms. Then wash box thoroughly or destroy if contaminated.

MINNESOTA TO RESTRICT BIRDS BY THE POUND

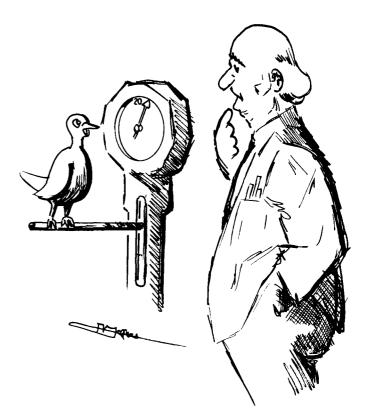
by Jerry Jennings

Senate Bill 449, recently introduced into the Minnesota State Senate by Messers. Lewis, Brown, and Spear offers a novel approach to the movement to restrict private ownership of animals.

The proposed legislation would prohibit possession of any animal not native to the state of Minnesota which "customarily attains a weight of 20 pounds or more" at maturity; zoos and circuses exempted.

State enforcement officers will each be issued a set of scales as standard equipment. Overweight animals may be forced onto crash diets in compliance with the new law, however, their owners should benefit from a savings on feed.

Let it never be said that the far-sighted Minnesota legislators are "penny wise and pound foolish".



HURD ASOUT THAT NEW MINNESOTA LAW COVERING PEOPLE DOC? YOU CAN'T BE OVER 65,5'8"TALL AND WEIGH MORE THAN A 150 LBS -

NOTE:

As of March 20th, 1975, we have been informed that this bill, which was introduced in both the legislative houses, has died in the House Committee, but is still pending in the Senate Committee.