HUSBANDRY

# Reptile Quarantine

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Photographs by the author.

The "animals are in quarantine" is a term often used by veterinarians — but what is the purpose of quarantine? Why is it important to herpetologists? What are the important components of an effective quarantine protocol?

Quarantine can serve as a time for animals new to a population to adjust to a new environment and diet and to recover from the stresses of translocation. However, more importantly, quarantine isolates a sick animal from healthy ones and serves to prevent the introduction of an infectious disease into one reptile population from another. The introduction could be from one private or public collection to another, pet shop to a private collector, one zoo to another, wild caught animals to a captive population, or captive animals being reintroduced into the wild. Many infectious diseases pose a risk to reptiles. Because effective therapy does not exist for many of these disease organisms, preventing their introduction into a population is very important. Diseases or infectious agents of concern include ticks, mites, coccidiosis, cryptosporidiosis, amoebiasis, roundworms, herpesvirus, paramyxovirus, mycoplasma, and inclusion body disease.

Reptiles from different regions of the world (e.g., Western versus Eastern hemispheres) should not be placed in the same enclosure. Their gastrointestinal tracts may support a different

Weighing a Mona Island Iguana; body weight is a crude but accurate indicator of condition. Low weight may indicate poor prior care of a health problem that must be identified and treated.

Drawing blood for a complete blood count, chemistries, and serological tests should be part of any pre-shipment, post-shipment, and release from quarantine protocol. Here blood is drawn from a vein on the underside of the tail of a Mona Island Iguana.

flora or suite of organisms, and their immune systems may be naïve toward each other's disease organisms.

Quarantined animals must be physically isolated from any other populations at risk. Ideally, housing is in a separate building or outside pen. If not in a separate building, animals are sufficiently isolated in order to prevent physical contact, aerosol or drainage contamination, and transmission of disease-producing agents via bedding, tools, or other inanimate objects. When feasible, animals should be housed individually. The area should be self-contained and easy to clean and disinfect. The animal caretaker should not be in daily contact with the rest of the reptile collection. If designating a separate caretaker is not feasible, care for quarantined animals should be scheduled at the end of the day, after all others are serviced. A separate set of feeding and cleaning utensils are used only in the quarantine area. Protective clothing such as disposable gloves, coveralls, and boot covers are worn at the quarantine location.

When possible, animals should be examined by a veterinarian before translocation to quarantine. Shipment and adjustment to new environments stress animals in many ways. Only healthy animals should be shipped, but this precaution is not always enforced. Prior to shipping, each animal should be identified, given a complete physical examination, weighed, feces checked for parasites, and blood drawn for a complete blood count, chemistries, and serological tests. Any disease concerns are addressed before animals are shipped, preferably with a medical history documenting any problems and all treatments.

Upon arrival at the quarantine facility, every animal should again be examined, weighed, and have its medical history reviewed. Any transport materials such as crates, cloth bags, and packing materials are disinfected immediately or discarded. Each animal is provided a proper thermal and light environment, shelter, hiding spots, basking locations, appropriate climbing structures, and enrichment items as appropriate. Introduction

Corneal lesions, such as on this Mona Island Iguana (*Cyclura cornuta stejnegeri*), can be symptomatic of several different health problems that should be diagnosed and treated during quarantine.

Conducting an ophthalmic examination on a Mona Island Iguana.

Conducting an oral examination on a Mona Island Iguana.

to the diet is done gradually by replacing food items from the previous diet with new ones.

A quarantine period of at least 90 days is recommended. This is usually enough time for clinical signs of disease to be manifested. Ninety days also allows time for seroconversion (development of antibodies in response to natural infection or to the administration of a vaccine) in those animals where a serological test is available to determine if exposure to a disease has occurred. For example, blood is routinely drawn from snakes twice during the quarantine period to check for the presence of antibodies to paramyxovirus. The best program is also one in which all new animals come into the facility at the same time and leave at the same time.

During the quarantine period, at least two additional fecal samples should be evaluated. After animals have adjusted to their new surroundings, medical tests not completed during the preshipment exam are performed or, in some instances, repeated. Medical records are updated. Daily observations are recorded for food consumption, fecal characteristics, abnormal behaviors, and body condition. An animal that dies in quarantine should be submitted for a necropsy, including the submission of tissues from various organs for histopathology evaluation, in order to identify the cause so that steps can be taken to prevent reoccurrence.

At the end of the quarantine period, animals are weighed and given another physical examination. Only healthy animals leave quarantine. If needed, the quarantine period may be extended until all disease concerns are addressed.

## References

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