

Guam Rail Captive Breeding Program

Conservation at Fresno Chaffee Zoo

The Guam rail is a flightless bird found only on the Island of Guam and its surrounding territories. This bird went extinct in the wild due to the introduction of non-native predators like domestic cats, rats and the brown tree snake. During the 1980s, the last of the remaining wild Guam rails were brought into captivity in an effort to save this species from total extinction. This group was sent to several zoos in the United States and formed the Guam Rail Species Survival Program.

Of all the introduced predators, the most devastating has been the brown tree snake, *Boiga irregularis*. This species of snake is a consummate predator which does not discriminate what it consumes and is considered to be venomous. On Guam, the brown tree snake focused its efforts on the avian species found on the island due to the lack of mammal prey. The flightless, ground nesting Guam rail was easy prey for this species as it spread across the island nation.

The brown tree snake was first noticed to be a predator of native species in the 1960s but no formal control efforts were formed until the 1990s. Several control strategies are utilized in controlling the tree snake - some have proven more effective than others. At this time, the most effective method has proven to be trapping, bounty system and exclusion. The trapping program consists of utilizing modified minnow traps placed in suitable habitats baited with frozen rodent and bird carcasses. This system is labor intensive and can only cover small areas. The bounty system encourages local communities to trap, kill and turn in snakes for a monetary prize. This program is considered to be successful in that it can cover large areas of the island and utilize the local community to help in the control efforts. The exclusion program was developed to reduce the number of new brown tree snakes being brought to the island on cargo. The USFWS uses detection dogs and inspection agents to check incoming cargo from the native range of the brown tree snake. If snakes are found, they are dispatched and the remaining cargo is thoroughly searched for other animals.

In recent years, a small island located off the southern tip

of Guam was proposed as a new release site for the Guam rail. This island proved to be ideal due to it being a US Air Force base and having few predators, brown tree snake or otherwise. Reintroduction efforts continue to this day.

Fresno Chaffee Zoo is helping to maintain the wild population of Guam rails by participating in the Guam Rail Species Survival Program. We house a pair of Guam rails on exhibit in the Tropical Bird House near the Stingray Bay exhibit. This pair is has proven to be successful in producing fertile eggs that are hand reared in our Bird Propagation Center. Animal keepers hand rear the chicks using puppets and limiting exposure to humans to give the young birds the best possible chance for survival in the wild. Once old enough, usually two months of age, the young Guam rails are sent to the Sedgwick County Zoo in Wichita, Kansas for a pre-release quarantine period. After they complete their quarantine, they are flown to Guam for release and will join the many birds that are helping to rebuild the wild population of Guam Rails.

- **Mark Halvorsen,**
Animal Curator - Birds & Reptiles



Conservation Status: Extinct in the wild

Safe

At Risk

Endangered

Extinct

