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World Travelers Cattle Egret <u>Bulbulcus ibis*</u>

By Ron Walker

The Cattle Egret is probably the most peripatetic of the Ardeiadae family of herons, bitterns and egrets. The spread of this species around the world has been remarkable.

The original range was southern and western Africa, southern Portugal, Andalusian (southern) Spain, Asia (India to Japan) and northern Australia. In the late 1800s (1877-1882) this egret found its way across the Atlantic Ocean to the New World at Surinam (between Guyana and French Guiana) on the Northeast hump of South America. From 1900 through the 1940s they spread throughout Africa, into Southeast Asia, the Caribbean, the West Indies, and much of northern South America. Of particular note was their appearance in 1941 for the first time in the United States in Clewison, Florida, although there was no record of breeding until the early 1950s. By the end of the 1950s, Cattle Egrets had been recorded in southern France, Russia, all of Australia, New Zealand, from Mexico through Central America and into Texas, Alabama, the Carolinas, Maine and New Hampshire. By 1994 they were found on all the continents except Antarctica, in all but two U.S. States and in 4 Canadian Provinces (Bologna, et al, 1978; del Hoyo, et al, 1992; Hanzac, et al, 1965; Long, 1981; Terres, 1980).

In 1959, at the urging of cattle ranchers who wanted to reduce the number of flies which damage hides and cause lower weight gains in cattle, the Hawaii Board of Agriculture and Forestry (HBAF) began a program of Cattle Egret introductions to Hawai'i. It was a cooperative effort between the HBAF, cattle ranchers, the Honolulu Zoo and the Hui Manu (bird club). Funding was provided by the ranches and Hui Manu. It was said that this was done only after mainland scientists studied the effectiveness of this bird on controlling flies as well as any impacts on native birds. A leading ornithologist, Roger Tory Peterson, said "The Cattle Egret, beautiful and beneficial, is a fine addition to American avifauna" (Breese, 1959).

Between July and August, 1959, 150 Cattle Egrets imported from near Miami, Florida were released on Kaua'i, O'ahu, Moloka'i, Maui and the Big island (7 ranches and dairies plus the Honolulu Zoo). *Latin: <u>Bulbulcus</u> (pertaining to cattle) and <u>ibis</u> (a sacred Egyptian bird)

In 1961 an additional 10 were released at the Honolulu Zoo and 22 at Honouliuli on O'ahu. Soon they were reported ranging widely from the release sites and establishing breeding rookeries (Breese, 1959; Thistle, 1959, 1961, 1962, 1963). This egret has since been seen on Lana'i (Hirai, 1978) and Ni'ihau (Telfer, 1983; Pyle, 1979), Midway (Pyle, op cit), Laysan, French Frigate Shoal (Pyle, 1978) and Nihoa (Conant, 1983). The Cattle Egret has extended its range to many islands and atolls of the Pacific including the Philippines; all of Micronesia including the

Northern Marianas (Guam), Marshall Islands (Majuro) and Caroline Islands (Yap, Truk); Johnston Atoll; and Palmyra Atoll (Pyle, P. et al, 1985; Pratt, H.D. et al, 1987; Pratt, T.K., 1988; Del Hoyo et al, 1992; Alderton, D., 2003; Vander Velde, N., 2004).

It should be noted that not all of these sightings necessarily indicated breeding populations. For the most part, the yearround, non-migratory breeding range is in tropical and subtropical areas. Migratory breeding ranges encompass more temperate climates. There is wide dispersal of Cattle Egrets, post-breeding. Many of the sightings are classified as "vagrant" or "rare visitor".

The extent to which this egret has fulfilled its purpose in reducing flies on cattle has never been measured empirically, but cattlemen insist the incidence of insect-born ailments on cattle has decreased where they are present (Telfair R.C. II 1994). They undoubtedly perform pest control services in consuming grasshoppers, crickets, centipedes, millipedes, moth and beetle larvae, cockroaches, frogs, toads, ticks, rats and mice. But they also devour small birds and the eggs and nestlings of larger birds including seabirds on islands. (Long, 1981;Telfair, op cit).

In Hawai'i, Cattle Egrets have been known to devour the young of the Hawaiian Stilt and Hawaiian Coot (Rauzon et

continued on page 42



al 2004). Telfer (1983) reported responding to a complaint of these egrets preving on the young of waterbirds, including the stilt, on Kaua'i and Ni'ihau. Hunters also complained of egrets taking young pheasant chicks in hunting areas on Kaua'i. They also favor seabird sites for roosting and nesting which raises worries about displacing Red-footed Boobies at the Kilauea Crater on Kaua'i. In addition, a favorite feeding site is at aquaculture ponds at Kahuku on O'ahu where they prey on prawns resulting in significant monetary losses to the farmers. At their heronies which persist over time, droppings eventually kill the tree on which they perch and nest. This includes hau (Hibiscus tilaceous) which some feel is an indigenous species. An indication that Cattle Egrets represented a hazard to aviation was recorded by the Hawaii Audubon Society in an 'Elepaio article in 1982 describing a problem at the Hilo airport. A roost had developed at Loko Aka Pond which brought the airport directly between the roost and pasture feeding areas. Their flights in the early AM and late PM brought them over the airport runways, often causing them to pause on the aprons. As a result, several near collisions and aborted plane landings had occurred. A scientist was quoted as saying "...the potential for loss of life is real." (Anon 1982). Paton et al (1986) reiterated

that near misses at airports were occurring. In 1987 Cattle Egrets began nesting at Kanaha Pond on Maui, at a roost 1/2 mile from the Kahului airport. Thus the threats to aviation now included not only the Maui main airport but those at Hilo, Honolulu and Lihue (Ohashi, T.J. et al 1988). In an analysis of bird strikes at the Lihue Airport, it was reported that a Cattle Egret was ingested by a B-737 necessitating the replacement of the engine fan blades. The same report stated that only 25% of strikes are actually reported by pilots. (Linnell, M.A. et al 1996).

Another problem with Cattle Egrets is their potential for transmitting parasites and disease organisms to livestock, domestic fowl, wild birds and people. In Florida, they were found to have viral encephalitis, mycoplasma (PPLO) infections, and salmonellosis. Parasites included louse flies, mites, trematodes, cestodes, helminths, and nematodes (Telfair, R.C. II, 1994). In 1972, Gagne (1972) urged the State Board of Agriculture to invoke strong regulations on the introduction of birds quoting a book by John Davis listing wild birds susceptible to Newcastle's Disease. Cattle egrets were included. Gooch (1977) in a letter from the State Department of Health to R. Walker of the Department of Land and Natural Resources reported nestling and juvenile egret samples positive for Salmonella. The concern is that this disease might spread to native birds (Rauzon et al, 2004).

Upon its introduction in 1959, the Hawaii Audubon Society said, "Although some of us regard importations with some trepidation, it would seem that the Cattle Egret will not displace any of our native birds" (Anon 1959a). But for other reasons, it is clear now that this deliberate introduction was a mistake. A wildlife biologist has said, "In view of the various negative impacts associated with Cattle Egrets including predation on young endangered waterbirds, depredation on aquaculture organisms, as hazards to aviation, and vectors of disease, the location of rookeries is important to management" (Walker, 1983).

continued on page 43

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Ohashi et al (1988) concluded that "Cattle Egrets are now another member of the list of 'biological control agents' introduced to Hawaii which have gone astray from their intended mission and humans today must learn to cope with them." CATTLE EGRETS- Just the Facts... 1. Names: Cattle Egret, Buff-backed Egret, Cow Crane, Cow Heron, Cow Bird, Tick Bird, Abu Qerdan (father of ticks). 2. Size: About a pound with a 20 inch wingspread; males larger. 3. World: All continents except Antarctica (although seen in Shetland Islands between Antarctica and Tierra Del Fuego). Islands in the Atlantic, Pacific, and Indian Oceans; landfalls in many of the seas of the world. 4. Hawaii: All major islands Including Niihau, Kauai, Oahu, Maui, Molokai, Lanai and Hawaii Vagrant arrivals and occasional visitors to the Northwestern Hawaiian Islands. 5. Habitat: Terrestrial and aquatic; farms, parks, school grounds, sports fields, road edges, lawns, garbage/refuse areas, wetlands, shorelines. 6. Food: Grasshoppers, crickets, spiders, flies, frogs, moths, earthworms, crayfish, centipedes, millipedes, cockroaches, fish, loose ticks (not those attached), beetle larvae, small mice, lizards, small birds and nestlings of large birds.

7. Breeding: Prolonged season. Courtship to egg-laying late March to Early September; broods in early May to early June; fledging July to September; upon nest failure, renesting may occur in same year.

8. Nesting In small, medium and tall trees and shrubs in colonies, often with other species such as the Black-crowned Night Heron. 1 to 3 eggs; incubated for about 24 days by both sexes. Fledging at about 30 days.

9. Longevity Maximum recorded- 1 7, 23 years, but normal life span from about 7 to 15 years.

10. Mortality Variable, mostly human related (shooting, pesticides, farm machinery) but also avian predators and wind in roosts.

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'ELEPAIO • 71:6 • AUGUST/SEPTEMBER 2011

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continued on page 44

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SATURDAY AUGUST 20TH HILTON HAWAIIAN VILLAGE BIRD TOUR WITH ALICE ROBERTS We Will meet at the penguins PLEASE CALL ALICE AT 808 864-8122 TO SIGN UP

October: Oahu Army Natural Resources Program (OANRP) will host Audubon to Palikea on Saturday Oct 22. At this time they can only host 10 people!

SO IF YOU ARE INTERESTED PLEASE RSVP TO CASEY AT hiaudsoc@pixi.com BY OCTOBER 1 OANRP asked that we get RSVPs by Oct. 1st & collect the names and e-mails of those that RSVP. OANRP WILL THEN SEND VOLUNTEERS the needed paperwork THAT TAKES 2 WEEKS TO PROCESS IN ORDER TO PARTICIPATE.

TRIP DETAILS

When: Saturday October 22, 2011 Where: Palikea Time: 8:30 a.m. - 5:00 p.m. **Project:** SERVICE WORK **Hike:** A 60 minute one-way hike (round-trip = 2 hours of hiking) along trail, with moderate elevation gains. Note: Some areas along trail have steep drop offs—this trip is not for the acrophobic! Level of difficulty = Moderate. Space is limited SO RSVP by October 1, 2011.

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Wedge-tailed Shearwater 'Ua'u Kani **Puffinus pacificus** By Ron Walker

So-called because of the shape of the tail and feeding habits of soaring low over the waves in an undulating pattern.

They nest in colonies along coasts and on offshore islands. In sandy, soil areas, digs burrows which it digs with feet and bill, but also will nest in crevices in lava flows (such as at Black Point on Oahu) and under vegetation which offers shade. Thus they may find cover in yards and under ledges in residential areas.

Adults arrive in March to mate and prepare their burrows. They lay a single white egg usually in June and towards the end of October the young are fledging and come out of their burrows. They are usually gone by November.

Adults come into nesting areas at dusk and leave at dawn which accounts for the vocalizations at night.

Wedge-tailed shearwaters like all seabirds are fully protected by both Federal (Migratory Bird Treaty Act) and State law (Wild Bird Law).

They prohibit disturbance or harm to the nests, eggs, young and adults of this bird. It is not a threatened or endangered species.

This species serves an important function for society in that it is used by sport and commercial fishermen to locate schools of fish upon which this seabird feeds.

The only recourse to minimizing disturbance in human settlements is to modify landscapes, vegetation or structures to lessen their attractiveness to the shearwaters.



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Calendar of Events

Table of Contents

SHEARWATER SOIREE 5:30 TO 9PM THIRTYNINEHOTEL THE LAUNCH OF OUR ADOPT A SHEARWATER PROGRAM AND A NIGHT OF FOOD, FRIENDS AND FUN!! TICKETS \$15 PRESALE AND \$20 AT THE DOOR SATURDAY AUGUST 20TH HILTON HAWAIIAN VILLAGE BIRD TOUR WITH ALICE ROBERTS WE WILL MEET AT 10 AM AT THE PENGUINS PLEASE CALL ALICE AT 808 864-8122 TO SIGN UP

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TUESDAY, AUGUST 2ND,

WHERE: PALIKEA TIME: 8:30 A.M. – 5:00 P.M. PROJECT: SERVICE WORK HIKE: A 60 MINUTE ONE-WAY HIKE (ROUND-TRIP = 2 HOURS OF HIKING) ALONG TRAIL, WITH MODERATE ELEVATION GAINS. *NOTE: SOME AREAS ALONG TRAIL HAVE STEEP DROP OFFS—THIS TRIP IS NOT FOR THE ACROPHOBIC!* LEVEL OF DIFFICULTY = MODERATE. SPACE IS LIMITED SO RSVP BY OCTOBER 1, 2011.

World Travelers
Field Trips45
Membership Application45
First Annual Shearwater Soiree46
Wedge-tailed Shearwater 'Ua'u Kani Puffinus pacificus47
Shop and Give Aloha with Foodland47
Adopt a Shearwater

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