ARIZONA GAME AND FISH DEPARTMENT
HERITAGE DATA MANAGEMENT SYSTEM

Animal Abstract **Element Code:** ABNGA04040
Data Sensitivity: No

CLASSIFICATION, NOMENCLATURE, DESCRIPTION, RANGE

NAME: *Ardea alba*
COMMON NAME: Great Egret, Common Egret, American Egret, Large Egret, White Egret, Great White Egret
SYNONYMS: *Casmerodius albus*
FAMILY: Ardeidae

AUTHOR, PLACE OF PUBLICATION: *Ardea alba,* Linnaeus, 1758. *Ardea alba egretta,* Gmelin 1789.

TYPE LOCALITY:

TYPE SPECIMEN:

TAXONOMIC UNIQUENESS: Formerly included in the genus *Casmerodius* (see AOU 1995). Has been included in genus *Egretta* by some authors (AOU in NatureServe). There are four subspecies of *Ardea alba*: *Ardea alba alba* is found from central Europe to central Asia and south to north and central Africa, and the Persian Gulf to south China and south Korea; *Ardea alba melanorhynchos* is found in Africa south of the Sahara and on Madagascar; *Ardea alba modesta* is found in India, southeast Asia, Japan, Korea and south through Indonesia to Australia and New Zealand; *Ardea alba egretta* is found in North, Central and South America, from northern USA to central Argentina.

DESCRIPTION: A large wading bird with all-white plumage, long black legs and feet, a long neck and a long straight, pointed yellow bill. In breeding plumage, long white plumes extend from back beyond end of tail. The Great Egrets' average length is 99cm (39 in), wingspan 130cm (51 in) and weight 1 kg (2.2 lbs). Males are larger than females.

AIDS TO IDENTIFICATION: *Ardea alba* differs from most other white egrets in larger size (averages 23 cm longer than reddish egret (*Egretta rufescens*), 38 cm longer than snowy egret (*Egretta thula*)), unicolored yellowish bill, and all black legs and feet. It also differs from the white form of the great blue heron (*Ardea herodias*) in having black legs and feet (vs. yellowish), smaller size and locality.

ILLUSTRATIONS:
Color drawing (Sibley 2000)
Color drawing (National Geographic 1999)
Color drawing of nestling (Baicich 1997)

Color drawing of egg (Baicich 1997)
Color photo (Florida Nature *in* http://www.floridanature.org/species.asp?species=Ardea_alba)
Color photo (Sewell *in* http://www.sms.si.edu/IRLSpec/Ardea_alba.htm)
Color photo (Bourgeot *in* http://24.68.1.9/francois/site/__great_egret(en).html)
Color photo (Dazenbaker *in* http://www.avesphoto.com/webstie/NA/species/EGRGRT-1.htm)

TOTAL RANGE: BREEDING: in North America locally from southern Oregon and southern Idaho south through California, Nevada, and southwestern Arizona, and from southeastern Saskatchewan, southwestern Manitoba, central Minnesota, southwestern Wisconsin, central Illinois, southern Indiana, southern Ontario, northern Ohio, Vermont (probably), and Maine south through the Gulf states (and west to eastern Colorado, southern New Mexico, and south-central Texas), along both coasts of Mexico (interior locally), and through the Bahamas, Antilles, Middle America, and South America to southern Chile and southern Argentina. Widespread also in Old World. (NatureServe, 2001).

WINTER RANGE: Northern limits of wintering in North America fluctuate with temperature. Generally occurs from w. Oregon (west of Cascades), California (west of Cascade-Sierra axis), lower Colorado River including southernmost Nevada, s. Arizona (north to Phoenix and Tucson Areas), east through New Mexico, the southern half and eastern third of Texas; east through the southern U.S. states to the lower coastal plain of S. Carolina; coasts of N. Carolina and Virginia; and breeding range along coast of New Jersey and New York, south throughout remainder of s. U.S.; and throughout Mexico and central America south to Panama; also throughout West Indies (McCrimmon, Ogden, and Bancroft, 2001). NatureServe (2001), reports that it also occurs south through breeding range to southern South America; also Old World. In the U.S., areas with the highest winter densities include the Chassahowitzka NWR on the Gulf coast of Florida, the Sabine NWR on the coast near the Louisiana-Texas border, the southern Colorado River near the Imperial and Cibola refuges, and Humboldt Bay NWR in northern California (Root 1988). Wanders irregularly outside usual range; a few times to Hawaii (NatureServe 2001).

RANGE WITHIN ARIZONA: According to Sibley, they migrate from the southeast to northwest and northeast; winter in the southwest; and can be found year-round in the southwest. However, according to the Birds of North America they winter along southern Arizona and breed and winter along the Colorado River and two parts (s. Maricopa county and s. Pinal county) in south central Arizona. According to AGFD HDMS unpublished data 2002 they have been found in Yuma, La Paz and Maricopa counties.

SPECIES BIOLOGY AND POPULATION TRENDS

BIOLOGY: Great Egrets are migratory in north, with extensive post-breeding dispersal occurring prior to southward migration. Migrants from the north are present in Costa Rica October to

April (NatureServe, 2001). They arrive at their roost at sunset or at dark and depart at first light. Their voice is very deep, low, gravelly *kroow*, grating unmusical *karrr*, and other low croaks; fading at the end; lower and coarser than the Great Blue Heron without the trumpeting quality. Their territorial defense display includes erect posturing and supplanting flights. Their greeting ceremony display consists of erect plumes and raised wings. The longest banded Great Egret life span recorded is 22 y 10 m. Predators of eggs and young include raccoons, American Crows, Stellar's Jays, California Brown Pelicans, Common Ravens, Boat-tailed Grackles, Black and Turkey vultures, Red-tailed Hawks, Peregrine Falcons, Great Horned Owls, Western Gulls.

REPRODUCTION: Nests singly or in colonies (rookeries) of varying size, large at times, often with other heron species or with Wood Storks. In general the breeding season may begin in late December in Florida, to mid-April in the northern parts of its' range, but varies in different years, probably with weather or water levels. They breed near fresh or salt water, in woodland and thickets. In Arizona they have been found to nest in mature cottonwoods, willows and salt cedars. They nest in trees of woodland or swamp often high up (60-80 ft. recorded, but 15-40 ft. more usual). The nest is a large flat platform (with a diameter of about 2 ft.) or bulkier re-used structure, similar to but thinner and frailer than those of the Great Blue Heron. The nests are made of sticks, twigs and tule stems; lined with smaller twigs and plant material. Building or repair begun by males, while later, the male brings material and the female builds. The Great Egret courtship display includes advertising calls, circle flight, neck stretched skyward, snap. Clutch size is 1-6 (usually 3-4) in the north, 2-3 in the south. May lay another clutch if eggs are lost during incubation. The eggs are elliptical to sub elliptical, pale greenish-blue, smooth and non-glossy (56x41mm). The incubation is performed by both sexes for 23-26 days. The nestlings are semi-altricial and downy. The down is long and white with fine silky tips. Stiffer on crown producing crest, sparse on neck and under parts, absent from around the eyes, on lores, chin, throat, back of neck and central upper breast. The bill is pink on hatching then turns yellow. The legs and feet are gray-green, becoming gray. Bare facial skin is blue-gray becoming yellow. Irides off-white. Both parents tend to the young. The young begin feathering in week one, mostly complete by 4-5 weeks. At 3 weeks, they leave the nest for branches and return to be fed. By 4th week they are being fed away from the nest. At 5 weeks they are flying short distances, and by 6-8 weeks they are flying with the adults.

FOOD HABITS: Carnivore, invertivore, piscivore. May gather in groups but usually forages singly, spreading out over available area. Commonly forages during the day in marshes and shallow water of ponds, also in fields. They will occasionally steal food from smaller species; piracy is 5 times more efficient than foraging. They slowly stalk their prey or use a stand and wait technique. They eat mainly fishes, amphibians, snakes, snails, crustaceans, insects and small mammals. They are able to forage in deeper water than other birds. Adults regularly drink both salt and fresh water.

HABITAT: Marshes, swampy woods, tidal estuaries, lagoons, mangroves, streams, lakes, rivers and ponds; also in fields and meadows.

ELEVATION: In Arizona they have been found between 100-1,500 ft (30.5-457 m).

PLANT COMMUNITY:

POPULATION TRENDS: According to the birds of North America (2001), "The magnitude of recent increases along s. Atlantic and Gulf Coasts appears to be greater than the more local declines in Florida and parts of the Mississippi River drainage. Thus, the magnitude of long-term increases in nesting pairs, especially since the 1970's suggests that numbers nesting in North America north of Mexico during the 1990's may be the highest for any time during the twentieth century. This increase has occurred in spite of continuing continent-wide reductions in extent and quality of wetlands. Such a recovery reinforces the view that this bird is a habitat generalist, a species that can successfully nest and forage in a wide range of conditions. While this view seems compelling, it also makes it difficult to explain regional declines in Great Egret numbers in large portions of the Mississippi River basin from the 1950s to 1970s".

SPECIES PROTECTION AND CONSERVATION

ENDANGERED SPECIES ACT STATUS: None
STATE STATUS: WSC (AGFD, WSCA in prep)
[Endangered, TNW AGFD 1988]
OTHER STATUS: Not BLM Sensitive (USDI, BLM AZ 2010)
[Bureau of Land Management Sensitive (USDI, BLM AZ 2008)]

MANAGEMENT FACTORS: They are most sensitive to intrusion when nesting or roosting. They are threatened by grazing, channelization, some recreational activities, pesticides, draining of marshlands, loss of riparian forest, and clearcutting.

PROTECTIVE MEASURES TAKEN:

SUGGESTED PROJECTS: Studies are needed to determine if geographic variation in molt correlates with the breeding season. More information is needed on basic demography in different regions: mortality, recruitment, movements etc. And for the large colonies, biologists need to identify foraging sites over a range of hydrologic conditions and develop conservation plans to protect the ecological integrity of these wetlands.

LAND MANAGEMENT/OWNERSHIP: BLM – Phoenix, Tucson and Yuma Field Offices; AGFD Mitry Lake; Private.

SOURCES OF FURTHER INFORMATION

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MAJOR KNOWLEDGEABLE INDIVIDUALS:

ADDITIONAL INFORMATION:

At the turn of the last century Great egret numbers plummeted due to the thriving millinery feather trade. Plumes were valued at $32 an ounce. Market and feather hunting devastated heron and egret populations, leading to the creation of the National Audubon Society and federal laws to protect migratory birds.

Revised: 2002-11-22 (AMS)

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