

= Crested shelduck =

The crested shelduck or Korean crested shelduck (*Tadorna cristata*) is a species of bird in the family Anatidae . It is critically endangered and may be extinct . The male crested shelduck has a greenish @-@ black crown , breast , primaries , and tail , while the rest of its face , chin , and throat are brownish black . The male 's belly , undertail coverts , and flanks are a dark grey with black striations . The upper wing coverts are white , while its speculum is an iridescent green . The female has a white eye ring , black crest , white face , chin , throat , neck , and uppers wing coverts and a dark brown body with white striations . Additionally , both sexes have a distinctive green tuft of feathers protruding from the head .

Very little is known about this bird because of the limited number of observations of this species . It apparently breeds in Korea and eastern Russia and is probably a relict species that had a wider distribution in prehistoric times . Some think that this species is extinct , although occasional sightings are reported , including a number of recent reports from the interior wetlands of China . Due to the persistent reports of the species ' survival , it is listed as critically endangered . However , the crested shelduck has not been definitively sighted since 1964 .

= = Taxonomy = =

The crested shelduck was initially collected in April 1877 near Vladivostock , Russia . However , it was not described until 1890 when the English zoologist Philip Lutley Sclater decided that the specimen was a possible hybrid between the ruddy shelduck (*Tadorna ferruginea*) and falcated duck (*Anas falcata*) . Around 1913 , a pair was collected in Korea , and the male was presented to Japanese ornithologist Nagamichi Kuroda . Kuroda noted that the plumage of the specimens was not definitively intermediate between Sclater 's suggested parents of the alleged hybrid . Another female was collected and given to Kuroda in 1916 , and supported by three specimens of a bird which was clearly not a hybrid and a historical record of the species in Japan , Kuroda described this bird as *Pseudotadorna cristata* in 1917 . The 1916 female was designated the holotype and preserved with the male in Kuroda 's collection . A member of the family Anatidae , this species was considered distinct enough to merit its own genus by Kuroda , but is now placed in the genus *Tadorna* , which includes six other species of Old World shelducks . The genus name *Tadorna* comes from the Celtic word *tadorne* and means " pied waterfowl " , essentially the same as the English " shelduck " . The specific epithet , *cristata* , comes from the Latin word for crested . The species ' common name is derived from the tuft of green feathers from the shelduck 's head . This species is also known as the Korean crested shelduck , Korean sheldrake , and Korean Mandarin .

= = Description = =

The crested shelduck is sexually dimorphic , with the male possessing a greenish @-@ black crown , breast , primaries , and tail , while the rest of its face , chin , and throat are brownish black . The male 's belly , undertail coverts , and flanks are a dark grey with black striations . The upper wing coverlets are white , while its speculum is an iridescent green . The female has a large white eye ring , black crest , and white face , chin , throat , neck , and upper wing coverts . It also has a dark brown body with white striations . Both sexes have a green tuft of feathers protruding from their head . The crested shelduck is about 63 to 71 centimetres (25 to 28 in) long , and therefore is slightly larger than a mallard . Its bill and legs are pinkish , though those of the female are paler than those of the male . The bill of the male has a small , knob @-@ like appendage at its base . The plumage of the immature is unknown .

= = Distribution and habitat = =

The crested shelduck has been collected near Vladivostok in Russia and near Fusan and Kunsan in Korea . It has been proposed that the species breeds in far @-@ eastern Russia , northern North

Korea , and northeast China and winters in southern Japan , southwest Korea , and along the east China coast as far south as Shanghai . It is believed to have a relict range , or to have been more widespread in historic times .

This species is believed to live in a wide variety of wetland and deep @-@ water habitats at varying elevations . While all collected individuals are from the coast , especially near river mouths , recently there have been a number of reports from interior wetlands in northeastern China . It has been speculated that this species may breed in mountainous areas either away from water or on volcanic lakes .

= = Ecology and behavior = =

Though not much is known about this shelduck , it is believed to be migratory , traveling from Siberia in the breeding season to Korea , southern Russia , and Japan for the winter . The crested shelduck is believed to eat aquatic vegetation , agricultural crops , algae , invertebrates , mollusks , crustaceans , carrion , and garbage . It has been suggested that this shelduck may be a nocturnal feeder . While its nest has not been described , similar shelducks nest in burrows and cavities ; it has also been suggested that this species may nest in tree cavities . It has been proposed that this species lays less than ten eggs which the female alone incubates . It is believed to breed from May to July . The shelduck has been observed in flocks of two to eight birds .

= = Conservation = =

The crested shelduck has never been numerous in modern times , though it is thought to have been more widespread historically due to its presence in Japanese aviculture . The species is known from only a handful of sightings and some retroactively declared it extinct in 1916 after a female was shot at Busan , South Korea . In 1943 , a sighting of this bird was reported near Chungcheongbukdo , building hopes that the species persisted . A group of three birds , two females and a male , was sighted by two Russian students in 1964 in the Rimsky @-@ Korsakov Archipelago near Vladivostok with a small flock of harlequin ducks . In 1971 it was reported from North Korea 's northeast coast and in 1985 two were reported from eastern Russia . However , there are severe doubts about the accuracy of the 1971 record . A recent survey of Chinese hunters resulted in a number of unconfirmed reports from northeastern China . For example , a Chinese forest worker claimed that he unknowingly ate two in 1984 . There are also unconfirmed reports of about twenty crested shelducks in the Dashanbao region of Yunnan , though many believe this flock to be a misidentified flock of ruddy shelducks . It is believed that , if the species survives , there likely are fewer than 50 individuals .

This species is threatened with extinction due to habitat loss , hunting , and overcollecting . In an attempt to gather reports of this species and raise awareness to prevent hunters from consuming this species , 300 @,@ 000 leaflets were distributed in Russia , Japan , China , South Korea , and North Korea in 1983 , with the only resulting report being the 1971 North Korea record . 15 @,@ 000 leaflets were distributed in northeastern China in 1985 and 1991 . While this garnered 82 reports of the species , follow @-@ up surveys of the area failed to find the shelduck . The Tumangan Development Project is threatening to destroy potential habitat in the area of several of the historic records .

= = Relationship with humans = =

This duck was collected in Korea and exported to Japan between 1716 and 1736 for aviculture , where it was known as the Korean Mandarin Duck . It was captured for aviculture in Japan up to at least 1854 and was portrayed in the Kanbun @-@ Kinpu , a Japanese avicultural work . Old Chinese tapestries also portray a duck similar in appearance to the crested shelduck . Kuroda claimed that Japanese hunters were still hunting the species in Korea in the 1920s . Three specimens exist in museums . The only male specimen is kept with a female in the Kuroda

collection in the Yamashina Institute for Ornithology , Tokyo . The male was collected at the mouth of the Geum River in 1913 or 1914 , and the female was collected near Busan in December 1916 . The female specimen described by Philip Lutley Sclater , collected by Lieutenant F. Irmininger near Vladivostok in April 1877 , was displayed in 1894 by the Zoological Society of London and today is kept in the National Museum of Denmark in Copenhagen . Two additional crested shelduck specimens are known to have existed , though both have been lost . The female collected in 1913 along with the sole male was given to a friend of the collector and subsequently has vanished . Additionally , around 1900 a Chinese hunter offered a specimen to a Peking University professor , but , as the professor did not realize how rare the bird was , he turned it down . In 1991 , the crested shelduck appeared on a Mongolian postage stamp .