

= Greater scaup =

The greater scaup (*Aythya marila*), just scaup in Europe or , colloquially , " bluebill " in North America , is a mid @-@ sized diving duck , larger than the closely related lesser scaup . It spends the summer months breeding in Alaska , northern Canada , Siberia , and the northernmost reaches of Europe . During the winter , it migrates south to the coasts of North America , Europe , and Japan .

Drake greater scaup are larger and have more rounded heads than the females ; they have a bright blue bill and yellow eyes . Their heads are dark , with a green gloss ; the breast is black , the belly white and the wing shows a white stripe . The females are mostly brown , again with white on the wing . They have dull blue bills and white on the face .

Greater scaup nest near water , typically on islands in northern lakes or on floating mats of vegetation . They begin breeding at age two , but start building nests in the first year . The drakes have a complex courtship , which takes place on the return migration to the summer breeding grounds and concludes with the formation of monogamous pairs . Females lay a clutch of six to nine olive @-@ buff colored eggs . The eggs hatch in 24 to 28 days . The down @-@ covered ducklings are able to follow their mother in her search for food immediately after hatching .

Greater scaup eat aquatic molluscs , plants , and insects , which they obtain by diving underwater . They form large groups , called " rafts " , that can number in the thousands . Their main threat is human development , although they are preyed upon by owls , skunks , raccoons , foxes , coyotes , and humans . Greater scaup populations have been declining since the 1980s ; however , they are still listed as a species of least concern on the IUCN Red List .

= Taxonomy =

The genus name *Aythya* is derived from the Ancient Greek *aithuia* which refers to a seabird mentioned by Aristotle and others and is thought to refer to a duck , auklet or other seabird . The species name *marila* is from the Greek word for charcoal embers or coal dust . The greater scaup was first studied by Linnaeus in 1761 . Male greater scaup from America are distinguishable from those in Europe and Asia by the stronger vermiculations , worm @-@ like carvings or marks on the mantle and scapulars , and are considered a separate subspecies , *A. m. nearctica* . Females of the two subspecies are indistinguishable . Based on size differences , a Pleistocene paleosubspecies , *Aythya marila asphaltica* , has also been described by Serebrovskij in 1941 from fossils recovered at Binagady , Azerbaijan . The greater scaup 's name may come from " scalp " , a Scottish and Northern English word for a shellfish bed , or from the duck 's mating call : " scaup scaup " .

A phylogenetic analysis of the diving ducks , examining the skeletal anatomy and skin , found that the greater and lesser scaups are each other 's closest relatives , with the tufted duck as the next closest relative of the pair .

= Description =

The adult greater scaup is 39 ? 56 cm (15 ? 22 in) long with a 71 ? 84 cm (28 ? 33 in) wingspan and a body mass of 726 ? 1 @, @ 360 g (1 @. @ 601 ? 2 @. @ 998 lb) . It has a blue bill and yellow eyes and is 20 % heavier and 10 % longer than the closely related lesser scaup . The male has a dark head with a green sheen , a black breast , a light back , a black tail , and a white underside . The drake or male greater scaup is larger and has a more rounded head than the female . The drake 's belly and flanks are a bright white . Its neck , breast , and tail feathers are a glossy black , while its lower flanks are vermiculated gray . The upper wing has a white stripe starting as the speculum and extending along the flight feathers to the wingtip . Legs and feet of both sexes are gray . The adult female has a brown body and head , with white wing markings similar to those of the male but slightly duller . It has a white band and brown oval shaped patches at the base of the bill , which is a slightly duller shade of blue than the drake 's . Juvenile greater scaup look similar to adult females . The greater scaup drake 's eclipse plumage looks similar to its breeding plumage ,

except the pale parts of the plumage are a buffy gray . Distinguishing greater from lesser scaups can be difficult in the field . The head of the greater tends to be more rounded , and the white wing stripe is more extensive .

= = Distribution and habitat = =

The greater scaup has a circumpolar distribution , breeding within the Arctic Circle both in the Old World (the Palearctic) and in North America (the Nearctic) . It spends the summer months in Alaska , Siberia , and the northern parts of Europe . It is also found in Asia and is present in the Aleutian Islands year round . The summer habitat is marshy lowland tundra and islands in fresh water lakes . In the fall , greater scaup populations start their migration south for the winter . They winter along the Pacific and Atlantic coasts of North America , the coasts of northwest Europe , the Caspian Sea , the Black Sea , the coast of Japan , Yellow Sea and East China Sea . During the winter months , they are found in coastal bays , estuaries , and sometimes inland lakes , such as the lakes of Central Europe and the Great Lakes .

In Europe , the greater scaup breeds in Iceland , the northern coasts of the Scandinavian peninsula , including much of the northern parts of the Baltic Sea , the higher mountains of Scandinavia and the areas close to the Arctic Sea in Russia . These birds spend the winters in the British Isles , western Norway , the southern tip of Sweden , the coast from Brittany to Poland , including all of Denmark , the Alps , the eastern Adriatic Sea , the northern and western Black sea and the southwestern Caspian Sea .

In North America , the greater scaup summers in Newfoundland and Labrador , Ungava Bay , Hudson Bay , Lake Winnipeg , northern Yukon , northern Manitoba , and northern Saskatchewan . It winters along the coasts of North America from northern British Columbia south to the Baja Peninsula and from Nova Scotia and New Brunswick south to Florida , as well as the shores of the Great Lakes and the Gulf of Mexico .

= = Behaviour = =

= = = Breeding = = =

Greater scaup breed in the tundra and the boreal forest ; it is estimated that 75 % of the North American population breed in Alaska . They typically nest on islands in large northern lakes . Greater scaup begin breeding when they are two years old , although they may start nesting at age one . Drake greater scaup have a soft , quick whistle they use to attract the attention of hens during courtship , which takes place from late winter to early spring , on the way back to their northern breeding grounds . Female greater scaup have a single pitch , a raspy ? arrr @-@ arrr @-@ arrr @-@ arrr @-@ arrr ? vocalization . The courtship is complex and results in the formation of monogamous pairs . Pairs nest in close proximity to each other in large colonies , usually near water , on an island or shoreline , or on a raft of floating vegetation . The nest consists of a shallow depression made by the female and lined with her down . After the female lays the eggs , the drake abandons the female and goes with other drakes to a large , isolated lake to molt . These lakes can be close to the breeding grounds or miles away . The lakes chosen are used yearly by the same ducks . The optimal molting lake is fairly shallow and has an abundance of food sources and cover . The female lays six to nine olive @-@ buff @-@ colored eggs , which she incubates for 24 ? 28 days . A larger clutch could indicate brood parasitism by other greater scaups or even ducks of other species . Newly hatched chicks are covered with down and are soon able to walk , swim , and feed themselves ; however , they are not able to fly until 40 ? 45 days after hatching . The vulnerable small chicks follow their mother , who protects them from predators .

= = = Feeding = = =

The greater scaup dive to obtain food , which they eat on the surface . They mainly eat molluscs , aquatic plants , and aquatic insects . During the summer months , the greater scaup will eat small aquatic crustaceans . There is a report of four greater scaups swallowing leopard frogs (with body length about 5 cm (2 @. @ 0 in)) , which they dredged out of a roadside freshwater pond . In freshwater ecosystems , the greater scaup will eat seeds , leaves , stems and roots , along with sedges , pondweeds , muskgrass , and wild celery . Owing to the greater scaup 's webbed feet and weight , it can dive up to 6 metres (20 ft) and stay submerged for up to a minute , allowing it to reach food sources that are unobtainable to other diving ducks . The greater scaup forms large flocks , some of which can contain thousands of birds . When flocks are in water , they will face the current , and as the ducks float backwards , some fly to the front of the flock to maintain position .

= = Threats = =

Common predators of the greater scaup are owls , skunks , raccoons , foxes , coyotes , and humans . Greater scaup often find themselves entangled in fishing nets , thus large numbers of them drown in nets each year . Greater scaup can catch avian influenza , so future outbreaks have the potential to threaten greater scaup populations .

Although the greater scaup faces numerous threats , the most significant challenge to their survival is habitat degradation caused by a mix of human development and runoff . Greater scaup , when moulting and during the winter , are threatened by escalated levels of organochloride contaminants . Oil and sewage pollution also threaten this duck . Since 80 % of the greater scaup population winters in the urbanized part of the Atlantic Flyway , these ducks are subject to high levels of organic contaminates , along with increased levels of heavy metals in foods and habitat .

A joint group of American and Canadian scientists researching scaup migration across the Great Lakes found that 100 % of female greater scaup , and 77 % of female lesser scaup , had escalated levels of selenium in their bodies . Selenium is an occurring semimetallic trace element that occurs naturally in some soils and minute amounts are necessary for animal life . However excessive selenium can cause reproductive harm and is highly toxic . On their migration across the Great Lakes , greater scaups are at risk of ingesting selenium by eating the invasive zebra mussels , which can render a hen infertile . This sterilization of hens is causing the population to decrease .

In a study of 107 scaup , they all had traces of iron , zinc , manganese , copper , lead , cadmium , cobalt and nickel in their tissue samples with varying concentrations of metals in different types of tissues . Further analysis revealed that the kidneys had the highest levels of cadmium , the liver had the highest levels of copper and manganese , the liver and the stomach had the highest levels of zinc , and the lungs and liver had the highest levels of iron . There was no difference in concentration when comparing genders .

= = Conservation = =

Greater scaup are rated as a species of least concern by the IUCN Redlist . During aerial population surveys greater and lesser scaup are counted together , because they look almost identical from the air . It was estimated that the greater scaup made up about 11 % of the continental scaup population . Since the 1980s , scaup populations have been steadily decreasing . Some of the primary factors contributing to this decline are habitat loss , contaminants , changes in breeding habitat , and a lower female survival rate . The 2010 American scaup population survey was 4 @. @ 2 million scaup , however , the worldwide greater scaup population survey estimated 1 @, @ 200 @, @ 000 to 1 @, @ 400 @, @ 000 mature greater scaup . Along with the aerial population surveys , there is a banding program for the greater scaup . Metal leg bands are placed on them , so that if the scaup is killed by a hunter or if it is captured by another banding group , the number on the band can be reported to biologists and wildlife organizations . These banding programs yield valuable data about migration patterns , harvest rates , and survival rates .

= = Human interactions = =

Greater scaup are a popular game bird in North America and Europe . They are hunted in Denmark , Germany , Greece , France , the United Kingdom , and Ireland , and in Iran for both sport and commercial reasons . Greater scaup are hunted with shotguns because they must be shot on the fly , a challenging task , as they can fly at up to 121 km / h (75 mph) . Greater scaup are hunted from shorelines and in open water hunting blinds or layout boats , low @-@ profile kayak @-@ like boats that hunters lie inside . Hunters frequently use decoys to attract the birds , often arranged to simulate a raft of greater scaup and featuring an open area to attract the birds to land . In most countries where greater scaup are hunted , a duck stamp is required along with the normal hunting licences that are required to pursue other game . In America and Canada , waterfowl must be hunted with non @-@ toxic shot .