

## *Rissa tridactyla* (Black-legged Kittiwake)

Family: Laridae (Gulls and Terns)

Order: Charadriiformes (Shorebirds and Waders)

Class: Aves (Birds)



**Fig. 1.** Black-legged kittiwake, *Rissa tridactyla*.

[<https://idfg.idaho.gov/species/taxa/18429>, downloaded 4 March 2017]

**TRAITS.** This gull is called the black-legged kittiwake based on its short legs which have three functional toes and are usually black, and its characteristic call. Males and females are similar in appearance, with females being slightly smaller; size is generally 37-41cm in body length with a wingspan of 91-105cm and a body mass of 305-525g (Wikipedia, 2017). The bill is yellow, the upperpart and wings are blue-grey with black wing tips while the underside and the head is white and the tail is somewhat forked (Fig. 1). Adults engaged in breeding have a narrow red ring around their eye while non-breeding adults do not.

**DISTRIBUTION.** Reportedly the most abundant species of gull (Arkive, 2017), with occurrences over a wide range over the north Pacific and north Atlantic Oceans, but nesting occurs along coastlines further north (Fig. 2) (IUCN, 2017). It is a rare visitor to the Caribbean including Trinidad and Tobago.

**HABITAT AND ACTIVITY.** When breeding, found in nests located on tall and steep coastal cliffs (Fig. 3) with little ledge present and an access to freshwater available. At other times, they

moult on beaches and when on passage they gather on continental shelves, upwelling zones and at banks with abundant fish. When they are not breeding, they are particularly pelagic, wandering the open sea from October to March-April (IUCN, 2017).

**FOOD AND FEEDING.** When catching prey, in addition to snatching food from the surface water, they are the only species of gull capable of diving below the water surface to catch prey (Nature Works, 2017). This species feeds mainly on marine invertebrates and fish but at times of breeding they may also incorporate plant matter, birds' eggs, small mammals, earthworms, intertidal molluscs and crustaceans to their diet. When out at sea during the winter period they will also include planktonic invertebrates may even scavenge for offal around outfalls from sewage plants and fishing vessels (Arkive, 2017).

**POPULATION ECOLOGY.** During the breeding period, large colonies of either single or mixed species assemble, often exceeding 100 000 pairs at the coastal breeding grounds. After leaving the colonies at the breeding ground they gather on beaches located between the breeding ground and the open sea where they moult in flocks of several thousand individuals before leaving for the open sea. They are then often solitary or in pairs but may sometimes be present in small flocks or highly dispersed clusters (IUCN, 2017).

**REPRODUCTION.** The breeding period begins from May-June however the black-legged kittiwakes begin to return to their coastal breeding ground from January, with males returning to the same nesting site every year. Breeding may sometimes begin earlier in southerly colonies, or later due to cold weather (Arkive, 2017). Pairs tend to be monogamous however males seldom attempt mating with other partners (Animal Diversity Web, 2017). Both the males and females construct the nest made of compacted mud, grass and feathers and lined with seaweed or moss. They are usually built on a narrow ledge at tall and steep coastal cliffs (Fig. 4), but instances of nests being made on glaciers or snow banks, on piers and buildings and on flat, rocky or sandy locations have also occurred. At the coastal breeding ground, large colonies gather for breeding and nearby nests may be spaced just 30-60 cm from each other (IUCN, 2017). One to three eggs are laid which may be brown, blue, grey, olive or tan, with dark brown-grey speckling. They are incubated by both parents for 24-28 days (All about birds, 2017). The chicks hatched are then taken care by both parents, with each of them being equally involved with the feeding and brooding responsibilities (Animal Diversity Web, 2017). Young birds are covered with soft, fine feathers and are white. At 34-58 days old fledging occurs, where feathers large enough for flight are developed on their wings. The juveniles contain distinctive features of a black zig-zag across the wings, a black collar at the back of the neck, a black band at the end of the tail, a dark mark behind the eyes, and whiter primary and secondary feathers on the wings (Fig. 5) (Wikipedia, 2017).

**BEHAVIOUR.** After leaving their nest, young kittiwakes stay out at sea for their first few years and only return for breeding at the age of 3-5 years old (Arkive, 2017). The location of nests plays an anti-predatory role in the survival of the species' eggs and chicks as nests situated on cliffs where rock overhang at the top are more protected from predation against predators than those which did not have any overhang or rock protrusions below the nest (Regehr et al., 1998). Kittiwakes are very noisy and the "kittiwake" call is the most common call of these birds; it is a long call which is emitted in repetitions of 3-10 by both males and females. These calls are

sexually dimorphic and individually distinct. It is most commonly used at gatherings when meeting companions but also during hostile interactions with neighbouring birds (Aubin et al., 2007).

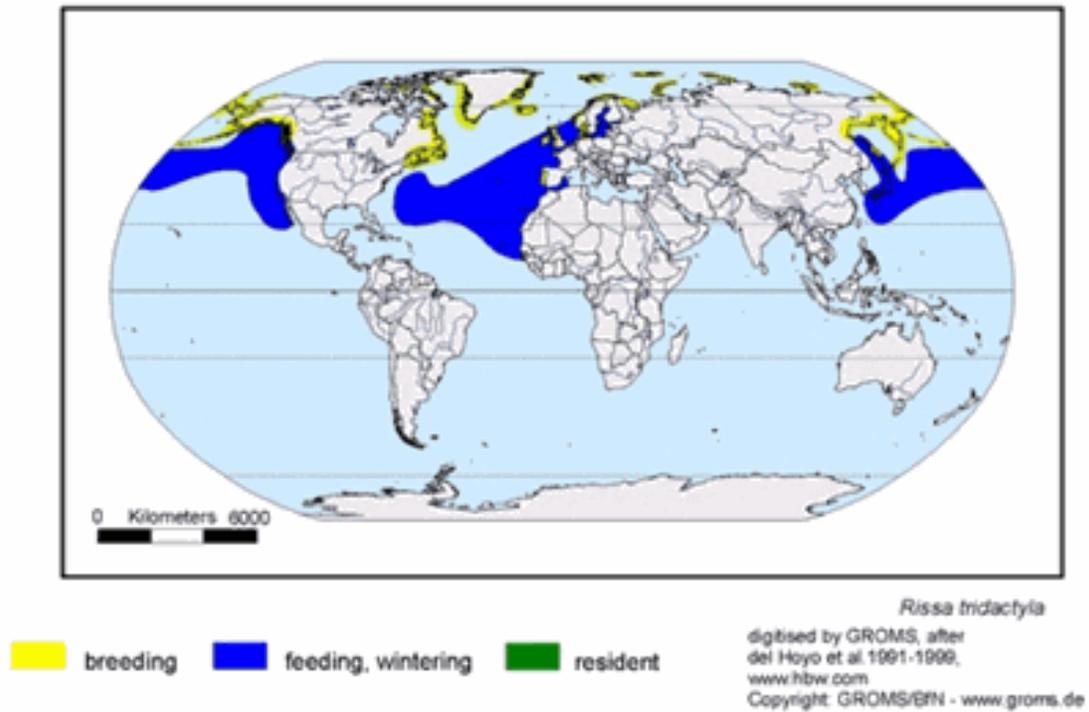
**APPLIED ECOLOGY.** The IUCN lists this species as Least Concern as its range and population size are large and although the size of the population is declining, it is not doing so at a rapid enough rate to be considered vulnerable or endangered neither in the range size criterion nor the population size criterion. The major threats to the species include a depletion of food supply and due to man, marine oil spills and oil pollution. They are also susceptible to the viral infection, influenza. They are not hunted but may be caught by fishermen as by-catch. Currently it is offered protection by the African-Eurasian Waterbird agreement and in several European countries by national legislation (IUCN, 2017).

#### REFERENCES

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**Fig. 2.** Geographic distribution of black-legged kittiwake.

[<http://www.planetofbirds.com/charadriiformes-laridae-black-legged-kittiwake-rissa-tridactyla>, downloaded 8 March 2017]



**Fig. 3.** Colony of black-legged kittiwakes on a cliff.

[<http://www.pixnio.com/fauna-animals/birds/kittiwake-birds-pictures/black-legged-kittiwake-colony-rissa-tridactyla-birds>, downloaded 8 March 2017]



**Fig. 4.** Black-legged kittiwake adult and chicks at the nest.

[<http://www.arkive.org/black-legged-kittiwake/rissa-tridactyla/image-G92599.html>, downloaded 8 March 2017]



**Fig. 5.** Juvenile black-legged kittiwake.

[<http://www.birdsofeurope.co.uk/JK.htm>, downloaded 8 March 2017]

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