

Dolichonyx oryzivorus (Bobolink)

Family: Icteridae (New World Blackbirds)

Order: Passeriformes (Perching Birds)

Class: Aves (Birds)



Fig. 1. Bobolink, *Dolichonyx oryzivorus*.

[http://animaldiversity.org/accounts/Dolichonyx_oryzivorus/pictures/collections/contributors/phil_myers/classic/bobolink/ downloaded 1 March 2017]

TRAITS. *Dolichonyx oryzivorus* is a small, black bird with short, sharply pointed beak. It exhibits sexual dimorphism during mating seasons. Males and females have similar plumage during winter periods. Males undergo moulting after winter into black plumage with white rump and yellow nape (Chapman, 1890a) as can be seen in Fig. 1. Also called ‘rice birds’ due to their diet during migration, which consists of rice.

DISTRIBUTION. Bobolinks are native to North America and have breeding grounds throughout the northern regions of the United States and the southernmost parts of Canada. They begin their southern winter migrations from the rice marshes of New York during July. They migrate southward, passing through the Caribbean, flocking to islands such as Jamaica and although they rarely venture to the windward islands they can sometimes be seen in Trinidad.

They continue southward and arrive in South America by September where they are found in large numbers in Brazil, Uruguay, Paraguay, and northern Argentina (Chapman, 1890b). A map of bobolink distribution is given in Fig. 2.

HABITAT AND ACTIVITY. Typically found in grassland habitats (Fig. 3), prairies and grassy wetlands during the summer mating period, bobolinks nest in the hayfields of the Midwest region of the United States. During their winter migration they can be found in rice fields of South America. During the winter period, habitats include the savannas of north-western Brazil, Uruguay, Paraguay, and north-eastern Argentina (Simon, 2014).

FOOD AND FEEDING. Bobolinks are typically daytime foragers however, during migration they may forage during nights of long daylight to build up fat reserves for energy to complete their migratory route. Insectivorous and granivorous, their diet consists of seeds such as dandelion (which is the main seed in their diet in May), thistle and cinquefoil, as well as adult and larval insects, including spiders, caterpillars and cutworms (Wittenbeger, 1978). Only invertebrates are fed to young, such as mayflies, arctiid larvae and sawflies (Simon, 2014).

POPULATION ECOLOGY. Bobolinks are flocking birds. Flocks may contain a few hundred to thousands of individuals. Despite being numerous prior to 1966, their population in the United States has seen a decline over 2% per year between 1966 and 2015, resulting in a decline of 65%. The remaining global breeding population is estimated to be about 8 million, 28% of which breed in Canada, and 72% which breed in the U.S. Individuals have an average lifespan of 5 years with a range of 2-9 years (The Cornell Lab of Ornithology, 2015).

REPRODUCTION. Bobolinks return after migration to their breeding grounds at the end of April to the beginning of June. In environments where enough resources are available and vegetation is high enough for protection, they exhibit polygyny where one male will mate with several females and sire several different broods. Clutches may also be polyandrous when one female mates with several males resulting in members of the brood having different fathers. Males compete for females by performing flight displays during the night consisting of fast wing beats in alternation with gliding accompanied by complex calls (Mather and Robertson, 1992). These flight display have been shown to give an indication of male quality i.e. the longer the flight display, the more likely a female will prefer a male (Mather and Robertson, 1992). The first females to be mated with are called 'primary females' and the second females to be mated with by a male are called 'secondary females' (Martin, 1974). Males stay near the nest of the primary female and assist in feeding but will not do this with the secondary female. Secondary females cope with this lack of paternal care by having small brood sizes thus being able to care for nestling more effectively than if there was a larger brood size. Females are the nest builders. Nests are shallow, cup shaped, made of grass, and are built on the ground, between tall grasses. Per year the average brood is one with a size of 3-7 eggs. Females incubate eggs for an average of 10-13 days. About 14 days after hatching, flight feathers develop but nestlings will hide among the grasses until first flight (Fig. 4) (Simon, 2014).

BEHAVIOUR. Male bobolinks are territorial during the mating season and establish their territories by performing flight songs. These songs are accompanied by flight displays and are also used in finding mates as flight displays indicate male quality and influence female

preference (Mather and Robertson, 1992). Females hide among the grass during nesting seasons. If a female senses a predator near the nest, it will run through the grass and away from her nest to distract and lead the predator away from the clutch (Simon, 2014).

APPLIED ECOLOGY. *Dolichonyx oryzivorus* is listed under the IUCN as a species of Least Concern. This status is justified by the rate of decline of the species which is not rapid enough to be deemed as vulnerable for the criterion of population size. This species has a large range, and therefore does not meet the criteria to be vulnerable. Due to increase agricultural activity on grassland prairies, there has been a decline in the global population of the bobolink (IUCN, 2016).

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Author: Israellan K. Felix

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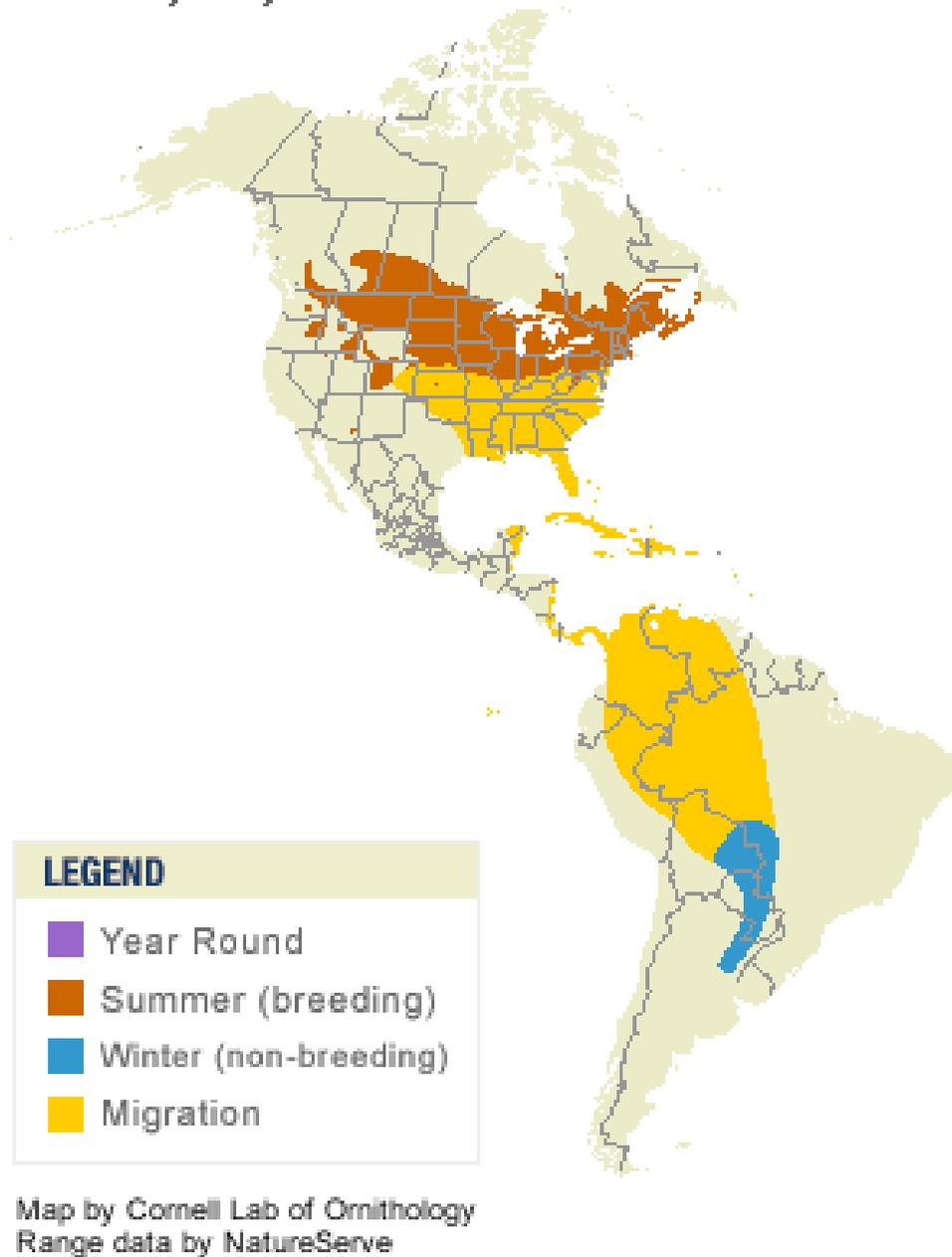


Fig. 2. *Dolichonyx oryzivorus* (bobolink) geographic distribution.

[<https://www.allaboutbirds.org/guide/Bobolink/lifehistory>, downloaded 7 March 2017]



Fig. 3. Female bobolink in typical grassland habitat.

[<https://www.allaboutbirds.org/guide/Bobolink/id>, downloaded 7 March 2017]



Fig. 4. Juvenile bobolink.

[<https://www.allaboutbirds.org/guide/Bobolink/id>, downloaded 7 March 2017]

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