

The ideas contained in Project Lifeline are exciting for teachers, students and anyone interested in conservation. The Activity Book has six main sections - what does endangered mean; what is endangered; why are they endangered; why care; what is being done; and what can my class do. Students develop a conservation ethic by learning habitat and what holds habitat together. Teachers can use as much of the kit as they choose, and spend from 20 minutes a week to 20 minutes a day, using it in whatever subject they wish to work on.

For example, a map of Canada on a grid is included - this can be enlarged (drawn, to work on art skills, or photocopied to save time) and a huge map can occupy one wall of the classroom. Students then can add the major vegetation regions of Canada (as always, they are told where they can find the information). From there, using the map provided in the teacher's guide, students can put endangered species in the areas where they are found. The Activity Book contains fact sheets on endangered and threatened species, such as the piping plover below, and students can study the habitat of a species and discuss limiting factors, distribution, population size, etc.

Students also learn about success stories (such as the Wood Bison and Whooping Crane) and by dealing with rates of increase, and projecting the numbers of animals for various dates in the future, mathematics and conservation are dealt with at the same time. A skills key lets teachers know what skills are used in completing the activity, and sample sched-

are also included. The skills index includes science, visual arts, research, language, mapping/graphing, math, outdoors, reporting, history and geography, music, drama and physical education.

Operation Lifeline also has many spinoffs. In New Brunswick, students have gotten involved in the Adopt-a-Species Project, where students get to know an endangered species well. The right whale, piping plover and eastern panther have been adopted, but Tim said he has not been having much luck with the Furbish's Lousewort! Students helped raise money to buy more boat time for Tim's right whale tagging project, and others will help survey piping plovers this summer.

These and many other projects in the Activity Book, such as getting students to write to politicians or for more information, are action-oriented and let students know that there is something they can do to help endangered species.

Piping Plover

Charadrius melodus

Description

The Piping Plover is a small shorebird, slightly larger than a house sparrow, averaging 17 centimetres long and weighing about 50 grams. It has a pale, sandy-grey back and white underparts. In breeding (spring) plumage there is a black ring around the lower neck and a black band across the forehead, but in winter these markings are reduced or disappear. The Piping Plover gets its name from its melodius call. A soft queeplo, often extended into queep queep queep queeplo.

Distribution

The Piping Plover has bred from central Alberta, southern Saskatchewan, southern Manitoba, northern Michigan, and southern Ontario to southeastern South Dakota, central Nebraska, and the southern shores of lakes Michigan and Erie; also on the Atlantic coast from the North Shore of the Gulf of St. Lawrence south to Virginia. It winters along the coast of the Gulf of Mexico from Texas eastward and on the Atlantic Coast from South Carolina to Florida, and rarely in the Bahamas and Greater Antilles.

Population size and trends

The Piping Plover was always considered to be locally distributed and generally uncommon. Records are scanty and it is difficult to estimate past breeding populations. However, observations during the last 25 years indicate a great reduction in the numbers of this bird and that the species has practically disappeared from certain parts of its former range, as in Ontario along Lake Erie shores, on the North Shore of the Gulf of St. Lawrence (Quebec), and in Chaleur Bay (Quebec). At most, 100 pairs may remain in New Brunswick and Prince Edward Island, 15 in Newfoundland, 75 in Nova Scotia, and 125 in the Magdalen Islands (Quebec). The Saskatchewan population may reach 500 pairs and there are slightly over 100 pairs in Alberta. The total Piping Plover population in Canada barely exceeds 1000 pairs.

Habitat

Throughout its range the Piping Plover breeds exclusively on beaches along the seashore or along inland lakes and sloughs. In the Atlantic Provinces and on the Great Lakes it occurs mainly on sandy beaches whereas it frequents primarily pebble or mildly alkaline beaches in the Prairie Provinces.

General biology

This small plover is migratory but is not a long distance traveller. It is one of the first shorebirds to return to the breeding grounds in spring, as early as the end of March in Nova Scotia. After the nesting season, birds assemble in small groups and by mid August most have departed for the wintering grounds. In spring and late summer, the birds that summer along the seashore move along the coast, to and from their wintering grounds. Those that summer inland may migrate directly overland, to or from the wintering or breeding grounds. During migration, the Piping Plover seldom associates with other shorebirds and is often observed singly or in small groups.

The nest is a shallow hollow in sand, above the highwater mark. It is often lined with small stones and bits of shells, grass or debris placed around the depression. A normal clutch comprises four eggs which are incubated by both parents for an average of 28 days. The eggs vary from cream to light brown and are sparsely marked with dark grey, black or dark brown spots and blotches. Once hatched, the young soon leave the nest area but usually remain with one of the parents. They fly about 27 days after hatching.

This plover feeds on insects, small crustaceans, mollusks and other invertebrates, captured by foraging leisurely on sandy or pebbly beaches, often at the waters edge.

Present distribution



THREATENED CANADIAN WILDLIFE