

IMPORTANT BIRD
AREAS OF CANADA



LES ZONES IMPORTANTES
POUR LA CONSERVATION
DES OISEAUX AU CANADA

POMQUET BEACH REGION IMPORTANT BIRD AREA

Pomquet,
Nova Scotia, Canada

Conservation Concerns and Measures

October 2000



In co-operation with the

Pomquet Piping Plover Working Group
Pomquet, Nova Scotia



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1 Résumé

Les environs de la plage Pomquet ont été désignés Zone importante pour la conservation des oiseaux (ZICO). Cette zone revêt une importance significative au niveau national pour la survie du Pluvier siffleur, espèce en danger de disparition. Au parc provincial de la plage Pomquet, ils représentent 8% de la population de la province, d'après les résultats du recensement de 1999. Le Pluvier siffleur est en danger de disparition en grande partie à cause de la perturbation d'origine humaine. La création d'un parc provincial à la plage Pomquet n'a pas eu que des avantages. On contrôle mieux la circulation des véhicules tout terrain, mais on n'a pas élaboré de plan pour solutionner le problème de l'augmentation des visiteurs. La loi protège les plages Mahoney et Dunn et on y a installé des enseignes expliquant la présence du Pluvier siffleur. Ces plages font partie de la Zone importante pour la conservation des oiseaux, mais nous n'en traitons pas en détail dans le présent document.

La plage Pomquet ne jouit pas d'un statut officiel de parc provincial. Elle n'a pas été désignée comme parc tel que le stipulait l'entente originale avec les propriétaires de la localité. Ce n'est que de manière informelle qu'on la reconnaît comme parc. En 1970, on a désigné la plage comme région protégée y rendant donc la circulation des véhicules illégale. Des clôtures et des blocs de pierre près de la frontière du parc préviennent assez bien la circulation, quoiqu'un certain nombre de véhicules tout terrain s'introduisent là où les Pluviers siffleurs font leur nid. Des membres du personnel du ministère des Ressources naturelles de la Nouvelle-Écosse font respecter la loi sur ce site.

La collectivité de Pomquet est au courant de la nidification du Pluvier siffleur sur la plage. L'école de Pomquet a adopté cet oiseau comme mascotte. Différentes personnes ont fait des présentations à l'école sur la faune, y compris le Pluvier siffleur, ce qui a contribué à une sensibilisation de la population locale. Le programme de Zone importante pour la conservation des oiseaux (ZICO) comprend des bénévoles qui deviennent protecteurs du Pluvier siffleur, le surveillent et sensibilisent les utilisateurs de la plage à sa présence. Ces protecteurs ont surveillé la plage pendant plusieurs années.

Le programme de Zone importante pour la conservation des oiseaux, pour les Maritimes, a débuté en 1999 et son rôle est de fournir aux groupes et aux organisations tels que le Pomquet Piping Plover Working Group (PPPWG, groupe de travail sur le Pluvier siffleur) des outils leur aidant à protéger, conserver et surveiller des sites importants en conformité avec le programme national (veuillez vous référer à la section 6.2 pour de plus amples renseignements sur le programme ZICO). Le programme offre un soutien aux groupes de naturalistes et à d'autres organisations leur permettant d'entreprendre des activités impliquant la conservation et de la promouvoir sur le terrain, de faire oeuvre d'éducation et de développer leur propre approche vis-à-vis la protection des oiseaux. Des planificateurs de ZICO facilitent cette approche. Le présent document a été rédigé en collaboration avec le Pomquet Piping Plover Working Group et tient compte des commentaires émis par les biologistes fédéraux et provinciaux et les gens du milieu.

Ce plan contient des renseignements sur le site et offre un résumé des mesures de conservation proposées. Ces mesures visent, pour la plupart, l'immédiat. Elles sont réalisables et on peut les appliquer à brève échéance. Nous invitons les groupes à se servir de cette documentation comme appui et comme outil dans leurs efforts futurs dans le domaine de la conservation.

Le programme ZICO pour les Maritimes a facilité la formation du groupe de travail sur le Pluvier siffleur et encouragé des projets visant à procurer des fonds pour l'embauche d'un protecteur côtier pendant l'été 2000. Le Programme ZICO continuera d'attirer l'attention sur la plage de Pomquet.

2 Introduction

The Pomquet Beach Region Important Bird Area is a nationally significant site for the endangered Piping Plover. The Piping Plovers present at Pomquet Beach Provincial Park represent 8% of the provincial population based on 1999 census results. In the last four years, the population has been stable at four pairs. Human disturbance is one of the main reasons why the Piping Plover is endangered. The creation of a provincial park at Pomquet Beach has had mixed blessings. Control of all-terrain vehicles has improved but no management plan is in place to address increased visitation. Mahoney's and Dunn's are legislated 'protected beaches' and have Piping Plover signs posted. They are part of the Important Bird Area, but are not dealt with in detail in this document.

Pomquet Beach has no official status as a provincial park. It was never declared a park as part of the original agreement with the local landowners. It has informal park status only. In 1970, the beach was designated protected. Vehicles are illegal on designated protected beaches. Fencing and boulders near the park boundary control most of the vehicle traffic but a few four wheelers still come through the Piping Plover nesting area. Nova Scotia Department of Natural Resources' conservation officers have carried out enforcement at the site.

The community of Pomquet is aware of Piping Plovers nesting on Pomquet Beach. The Pomquet School has adopted the Piping Plover as their mascot. Various people have given presentations in the school about wildlife conservation and Piping Plover. This has generated considerable awareness in the community. There has been a volunteer Guardian Program at Pomquet Beach for several years. This program involves local volunteers who become Guardians of the Piping Plovers and help monitor the birds, protect them, and educate beach users. The Nova Scotia Department of Natural Resources posts signs.

The Department is also responsible for the enforcement of the Nova Scotia Endangered Species Act. Under the Act, as of June of 2000, Piping Plovers and their nests are protected.

The role of the Maritime Important Bird Areas (IBA) Program, which commenced in 1999, is to provide groups and organizations such as the Pomquet Piping Plover Working Group (PPPWG) with tools to protect, to conserve, or to monitor Important Bird Areas under the national program (please refer to section 7.2 for more information on the IBA program). The program provides assistance to naturalists groups and other organizations to carry out conservation activities, to promote conservation on the ground, to carry out education, and to develop their own approaches to bird conservation. IBA conservation planners facilitate the above. This present document was written in co-operation with the Pomquet Piping Plover Working Group, and comments from provincial and federal biologists and local people were incorporated.

This conservation plan provides information about this sites, and summarizes recommended conservation measures. The measures proposed in this document are mostly short-term. They are achievable in a timely manner and they are realistic. Groups are encouraged to use the plan as an advocacy and education tool to further conservation efforts.

The Maritime IBA program has facilitated the formation of the Pomquet Piping Plover Working Group and encouraged fund-raising to hire a Piping Plover Guardian during the summer of 2000. The IBA program will continue to attract attention to the Pomquet Beach as a nationally significant site for nesting Piping Plover.

3 IBA Site Information

3.1 Site Description

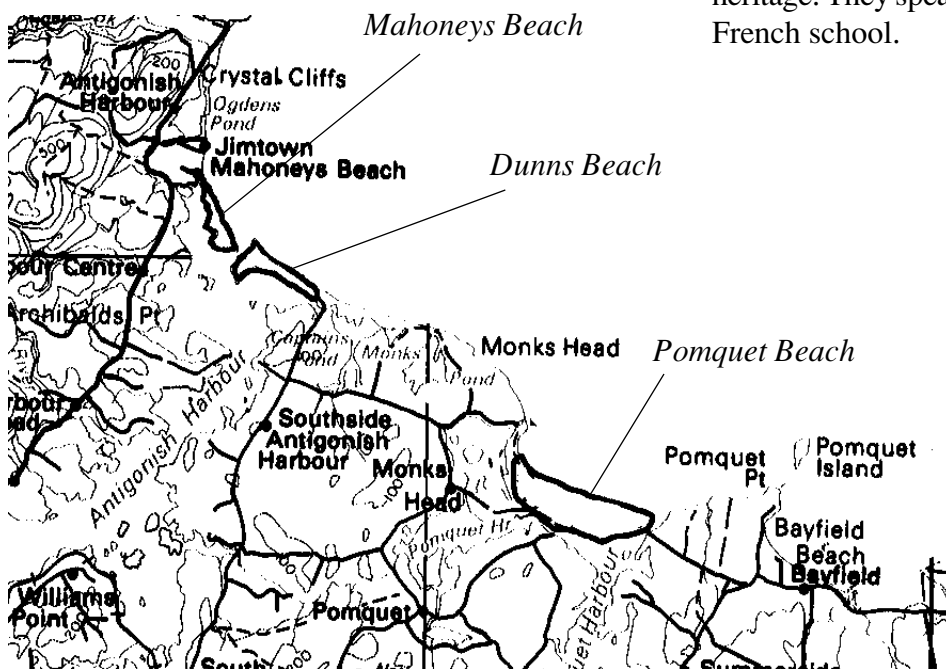
Pomquet Beach is located approximately 15 km northeast of the town of Antigonish in the southwest corner of St. George’s Bay. The beach runs for four kms in a west to east direction. The west end is attached to Monk’s Head. The east end spreads out at the mouth of Pomquet Harbour. The main part of the beachfront faces the Northumberland Strait. At high tide, the beach is about 5-10 metres wide. The widest area occurs mid-way along to the mouth of Pomquet Harbour (Boates et. al. 1994). This area is excellent Piping Plover habitat. The low tide exposes broad sandflats ideal for feeding plovers and other shorebirds. Pomquet Beach is one of the best examples of a prograding dune system in Nova Scotia (Bowen 1975 and Simmons et. al 1989). The habitat has changed little, and it will likely provide stable plover habitat for many more years to come. Elsewhere in Nova Scotia, plover habitat changes easily from a sandy beach to a rocky beach.

Since the decline of Piping Plover in Nova Scotia, Pomquet Beach has been one of the most stable sites for this species in the province. Pomquet Beach is only accessible by road at the west end. All-terrain vehicles continue to gain access at a variety of locations. There are no residential or commercial developments within the beach zone. The beach is close to residential areas further inland.

There are two beaches west of Monk’s Head: Dunn’s Beach and Mahoney’s Beach. Both of them also provide excellent habitat for Piping Plover. Historically, these sites were used by Piping Plovers. Recently, the use of these two beaches by Piping Plover has been sporadic.

Among the original users in the region were the Micmac. There is a native reserve on the east side of Pomquet Harbour at the Afton. The village of Pomquet is unique for its French-Acadian history. Surrounded by English communities and integrated with other cultures such as people of Dutch descentance, the people of Pomquet are proud of their Acadian heritage. They speak French, and have their own French school.

3.2 Site Map



3.3 IBA Species Information

In Canada, the Piping Plover (*Charadrius melodus*) was designated as endangered in 1985 by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC). COSEWIC determines the status of species based on scientific information (Bell 1985; please refer to section 7.1 for more information on Piping Plovers).

The Pomquet Beach Region Important Bird Area is a nationally significant site for this endangered bird.

The international Piping Plover census in 1996 counted 5,913 breeding adults in North America (Plissner and Haig, unpublished). The breeding range for the Atlantic Coast population includes beaches in the four Atlantic Provinces, the Magdalen Islands, St. Pierre et Miquelon, and along the American coast from Maine to South Carolina. In 1996, 423 adult birds were counted along the eastern Canadian shore (Plissner and Haig, unpublished).

In the last five years, an average of over five pairs used the three beaches for nesting.

3.4 Other Elements of High Conservation Value

Pomquet Beach illustrates one of the best examples of dune succession, from new colonising vegetation, to old forest, to a salt marsh and a lagoon. A rich continuous supply of sand ensures a stable beach system.

The succession of plants from the edge of the dune to the lagoon on the backside provides the nature enthusiasts with a high visual diversity. At the edge of the vegetated dune Sea Rocket (*Cakile edentula*), Sandwort (*Sagina s.*) and orach (*Atriplex sp.*) are found. Beach Grass or Marram Grass (*Ammophila breviligulata*) make up most of the vegetated dune with occasional pockets of various herbs, sedges (*Carex siliceae*), and numerous Poison Ivy (*Toxicodendron radicans*) plants. Further along, Bayberry (*Myrica pensylvannica*) mixes with Poison Ivy. Reindeer lichens and numerous mosses replace the grasses. In the more sheltered locations Solomon's Seal (*Smilacina stelleriana*) and Scouring Rush (*Juncus sp.*) are dominant.

Table 2 Piping Plover Pairs for Pomquet Beach and Region (pairs/singles)

| Beach Name | 76 | 77 | 79 | 80 | 81 | 82 | 83 | 84-90 | 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 00 |
|------------|----|----|-----|----|----|----|----|-------|----|----|----|----|----|-----|-----|----|-----|-----|
| Pomquet | ? | 1 | 1/1 | 2 | 1 | 1 | 1 | ? | 1 | ? | 3 | 2 | ? | 2/2 | 4/1 | 4 | 4/1 | 4 |
| Dunn's | ? | 1 | 1 | 1 | 1 | 1 | 2 | ? | 0 | ? | 0 | ? | ? | 0/0 | 0/0 | ? | 0/0 | 0/0 |
| Mahoney's | 1 | 6 | 4 | 1 | 3 | 3 | 1 | ? | 0 | ? | 1 | 3 | ? | 2 | 2/2 | 1 | 1/0 | 1 |

Just before the forest are the shrubs and heath composed mostly of small trees like Trembling Aspen (*Populus tremuloides*), Red Oak (*Quercus borealis*), and Hawthorn (*Crataegus sp.*). Smaller shrubs such as gooseberry (*Ribes sp.*), crowberry (*Empetrum sp.*), Foxberry (*Vaccinium vitis-idaea*), blueberry (*Vaccinium sp.*), Ground Juniper (*Juniperus sp.*), Wild Rose (*Rosa virginiana*), and bearberry are common. The rare Bastard Toadflax (*Linaria sp.*) is common in the heath area. This is the only known location for this plant on the mainland. The forest is quite species rich. For a more complete description, see Bowen 1989.

Just off Pomquet Beach, outside of the IBA in St. George's Bay is a Great Blue Heron and Double-crested Cormorant colony. Osprey and Bald Eagle breed locally in good numbers. Several species of shorebirds use the area.

3.5 *Land Ownership and Use*

The western end of the beach from the beginning of the beach at Monk's Head to the park boundary, is privately owned. As with many coastal lands, exact property boundaries are hard to determine. The Nova Scotia Department of Natural Resources owns the eastern end of the beach.

The grassy areas of dune were used as pasture in the past. Some of the larger oaks and White Pines have been logged. Sand mining has occurred in the past as well.

The open forest and dune are covered with old all-terrain vehicle trails. The area is particularly attractive for all-terrain vehicles because of its relief (Bowen 1989), and extensive damage had occurred before the area became a provincial park.

Some vehicles still access the beach from the direction of Monk's Head. However, in comparison with Dunn's and Mahoney's Beach, Pomquet is almost pristine. These two former sites receive a lot of vehicle traffic, resulting in damaged vegetation.

Since its designation as a Provincial Park in 1970, the popularity of Pomquet Beach has increased. Bordering the plover habitat is a supervised swimming area, bringing people very close to the plovers. On a sunny weekend, 1000 or more people use the beach. Several of them go for walks along the beach.

4 Conservation Concerns

The main impact to the site is from recreational use. Human disturbance of nesting Piping Plovers is one of the main causes for their decline (Flemming et al. 1988, Burger 1991). During nesting, and while the chicks are still young, they are extremely vulnerable to disturbance. People or their uncontrolled pets can cause nests to be abandoned or young birds to be injured and killed. Young have to feed constantly to increase the energy reserves needed for their fall southward migration. Too much disturbance greatly reduces their chances of survival (Burger 1987, Shaffer and Laporte 1992).

Storm tides, predators, dogs, or inattentive humans sometimes destroy nests before the eggs hatch. When nests are destroyed before the young hatch, the plovers often re-nest close by. The young hatched from these late nesting efforts are not able to fly until late August. Thus their most vulnerable period coincides with potentially heavy disturbance through increased numbers of people on the beach.

Natural events such as high tides in the spring can flood nests (Strauss 1990, Patterson et al. 1991, Shaffer et Laporte 1992). In some areas natural habitat changes such as increased vegetation cover can make beach areas unsuitable for nesting.

Developments such as cottages or campgrounds in coastal areas cause a decrease in habitat available to the birds for nesting and feeding. Further developments in the park could endanger the survival of Piping Plover.

Vehicles such as ATV's on the beach can destroy nests and young (Strauss 1990, Melvin et al. 1994), and seriously disturb the birds (Cairns and McLaren 1980, Patterson et al. 1991). It is illegal to use vehicles on the provincially designated protected beaches in Nova Scotia.

Human presence on beaches may increase the numbers of natural predators of the Piping Plover, such as foxes, skunks, racoons, crows, and gulls. Garbage left on beaches is not only unsightly, it also attracts predators that may then eat young birds or eggs (Strauss 1990).

5 Conservation History

Awareness of the Piping Plover in Pomquet is high because of the work done in the local Pomquet School and in the community. The Pomquet School has adopted the Piping Plover as their mascot. Various people have given presentations in the school about wildlife conservation and Piping Plover.

There has been a volunteer Guardian Program at Pomquet Beach off and on now for several years. The Piping Plover Guardian Program grew out of a need in all three Maritime Provinces to address the high level of human disturbance near Piping Plover breeding sites. Guardian signs are posted near the nesting plovers by the regional biologist.

The regional biologist, Mark Pulsifer, and volunteers do occasional nest and chick counts. He and others have given presentations in the community and in the school. Also, a briefing to the lifeguards that supervise the swimming beach is given on a yearly basis. Many of the local naturalists stop and talk to visitors on the beach, especially if they are near Piping Plover habitat. Guardian signs were also posted at Mahoney's and Dunn's Beach by the regional biologist.

With the designation of the provincial park, fencing and boulders were placed near the park boundary. This controlled some of the vehicle traffic. Some excellent enforcement has been carried out to control vehicle traffic. In one case, the sentence given to a youth was to write an essay on Piping Plover conservation.

Piping Plover are a factor that government agencies and the public are aware of, and that needs to be taken into account when planning any development that could have an impact on the birds. This small bird with its plaintive whistle and striking black collar has a great appeal to people. As an endangered species, it is attractive to many birdwatchers that come to

look for this rare bird and who appreciate being shown a Piping Plover.

Pomquet's main tourism strategy focuses on the promotion of the local French culture and the natural features of the area. Although people are particularly attracted to the recreational value of this area, many visitors also come for its natural aspects. Eco-tourism is a growing industry throughout Atlantic Canada, and bird watching is one of the fastest growing pastimes in North America. Birdwatchers spend money on accommodation, gas, and food when looking for unusual birds.

6 Conservation Measures

The Piping Plover Recovery Plan for Atlantic Canada clearly outlines the need for the protection of critical Piping Plover habitat. In the plan, many actions are outlined such as education, stewardship, and monitoring. The Pomquet Piping Plover Working Group (PPPWG) have expressed great concern about Piping Plover and the protection of their beach. They have identified education on site and in the community as their main goal.

Throughout the Maritimes, pressures are very strong to develop beaches for tourism. Tourism is seen as an alternative to the declining resource-based economy. Many areas have been developed for resorts, golf courses, or cottages. The fewer the pristine beach areas that are left, the higher the development pressures. Certain natural areas have to be maintained to ensure the health of the coastal zone as both an erosion buffer and as habitat for species.

The following conservation measures have been developed with the Pomquet Piping Plover Working Group, and in consultation with other individuals and groups. The list below is by no means exhaustive, but tries to provide some possible avenues for action to further the protection, conservation, and education about Piping Plover.

The overall goal for the Pomquet Beach Region Important Bird Area is to ensure that Piping Plover will continue to nest at the site. To make this possible, people need to be willing to share the beach with wildlife. Various steps are outlined below that identify the measures that can be taken to ensure the achievement of this goal.

Objective 1 To educate beach users.

Active protection programs with signs and/or roped off portions of beaches, in combination with education of beach users, can increase Piping Plover fledging success. On some Piping Plover beaches, nesting areas are zoned with low-lying rope attached to plover signs. The intent here is to clearly indicate the area plovers need to remain undisturbed. This technique is successful when there is sufficient awareness, and when there is a need to better control the movement of people around plover nesting areas. This approach has been crucial to the survival of the species in other areas (Goossen et. al. 1999). Guardians can either be trained volunteers or trained hired students that talk to people on the beach and guide them to areas where there are no plovers. They can also show people the plovers with binoculars or show pictures of plovers. This not only protects the birds during breeding, it also educates the public in a friendly way. It is a non-invasive and non-confrontational approach.

| Actions | Target date, Key contacts |
|--|---|
| 1. Invite volunteer guardians & other naturalists to continue to patrol the beach. | On going, Randy Lauff, naturalists club; Mark Pulsifer; PPPWG |
| 2. On-site education (Guardian Program). | On-going, Carried out in 2000, Bob Bancroft & PPPWG |
| 3. Ensure Guardians are present at essential times. | On-going, PPPWG |
| 4. Installation & maintenance of guardian signs. | On-going, Mark Pulsifer & guardians |

Objective 2 **To carry out education in schools.**

Education is a long-term measure to achieve attitude change and a change in behaviour. Through awareness raising activities, children learn about this endangered bird and thus become more willing to accept and support protection or conservation measures. Education in schools can help build community understanding and support.

| Actions | Target date, Key contact |
|--|---|
| 1. Organize school presentations. | On-going, Mark Pulsifer, local naturalists |
| 2. Presentation in French. | Fall 2000 Roland Chiasson of the Piper Project |
| 3. Piping Plover poster contest for schools. | 2000 and on-going, Mark Pulsifer |

Objectives 3 **To continue yearly monitoring of species and fledging success.**

Monitoring can give a clear indication how well a species is doing. It also helps to explain and understand the dynamics of the population. Most of the Atlantic Provinces undertake surveys and a certain degree of monitoring. Monitoring also includes using fledging success as an indicator of the productivity of the species. Studies at beaches with human activity have demonstrated that disturbance negatively affects Piping Plover breeding success (Cairns and McLaren 1980, Flemming et al. 1988, Strauss 1990).

The 2000 revised Piping Plover Recovery Plan (Goossen et al. 2000 unpublished) sets objectives to attain a viable, self-sustained population in Atlantic Canada. The plan recommends that an average fledging rate of 1.5 chicks/pair/year be surpassed, and that work be done to protect at least 65% of Atlantic Canada's nesting Piping Plovers.

| Actions | Target date, Key contact |
|--|---|
| 1. NSDNR to conduct P. Plover surveys on Pomquet, Dunn's, and Mahoney's; hire & train students as guardians; volunteers to act as guardians when students are not there. | yearly, Mark Pulsifer, Bob Bancroft, PPPWG, local citizens, Randy Lauff & local naturalists |
| 2. Monitor fledging success. | yearly, Mark Pulsifer & staff, Bob Bancroft |
| 3. Participate in International Census. | 2001, Mark Pulsifer, Bob Bancroft, PPPWG, Randy Lauff & local naturalists, CWS |

Objective 4 **To ensure control of vehicles on Pomquet Beach.**

Vehicles can destroy nests and young and seriously disturb birds. Although it is illegal to use a vehicle on Pomquet Beach, on occasion tracks can be observed running along the shore.

Some of the fencing within the provincial park can be improved to reduce access possibilities. Enforcement officers on site from time to time can help to discourage all-terrain vehicle use in sensitive habitats.

| Actions | Target date, Key contact |
|---|---|
| 1. Enforcing the protected beaches act. | On-going, Mark Pulsifer |
| 2. Assess fencing around the Park. | On-going, Mark Pulsifer & conservation officers |

Objective 5 **To designate Pomquet Beach as a Western Hemisphere Shorebird Reserve Network (WHSRN) site.**

Site designation raises the profile of an important area considerably. Although such a designation, even if it is international in scope, is purely educational, it can have a very positive impact on any conservation initiatives. Once the site is designated, it could be twinned with a Piping Plover wintering sites. This could be done with the Nova Scotia Department of Natural Resources, and the local school.

| Actions | Target date, Key contact |
|---|--------------------------|
| Western Hemisphere Reserve Network designation. | 2001, NSDNR |

7 Background Information

7.1 IBA Species Accounts

Piping Plover (*Charadrius melodus*)

Description

The Piping Plover is a sand-coloured, sparrow-sized shorebird that nests and feeds along coastal sand and gravel beaches. The adult has yellow-orange legs, a black band across the forehead from eye to eye, and a black ring around the neck. It runs in short starts and stops. When still, the Piping Plover blends extremely well with open, sandy beach habitats. The bird's name is derived from its call notes, plaintive bell-like whistles that are often heard before the birds are seen.

In eastern Canada, Piping Plovers breed exclusively on beaches along the seashore. They prefer flat beach areas with sand and cobble substrate above the high tide line. Areas used by Piping Plovers generally have little vegetation, however occasionally nests will be built in Marram Grass (*Ammophila breviligulata*).

Distribution and abundance

The species is only found in North America. The Plovers migrate south in late summer to winter in Cuba, the Bahamas, Mexico, and the United States along the Atlantic and Gulf of Mexico coasts. Little is known about Piping Plovers in their wintering grounds.

Life cycle

Piping Plover return to their nesting areas from mid-April to early May. They establish nesting territories and form pairs. The pair makes a depression in the sand that they may line with small, white pieces of shell.

Usually four eggs are laid. After about 28 days of incubation by both adults, the young hatch. Within hours, the downy young leave the nest and follow their parents in search of marine worms, shrimp-like creatures, and insects that they find in the sand. Both the eggs and young blend in so well with their surroundings that they might go unnoticed. When predators or other intruders come close, the young squat motionless on the sand while the parents attempt to attract the attention of the intruders, often by feigning a broken wing. Young are able to fly in about 30 days. Plovers often gather in-groups on undisturbed beaches before their southward migration. By the end of July the first Piping Plovers, usually adults, will leave for their wintering areas.

Feeding

Piping Plover feed on minuscule crustaceans, shore flies, and marine worms that they find along the sandy beach and the mud and sandflats.

7.2 The IBA Program

The IBA program is an international initiative co-ordinated by BirdLife International, a partnership of member-based organisations in over 100 countries seeking to identify and conserve sites important to all bird species worldwide. Through the protection of birds and habitats, they also promote the conservation of the world's biodiversity. There are currently IBA programs in Europe, Africa, the Middle East, Asia, and the Americas.

The Canadian BirdLife co-partners are the Canadian Nature Federation (CNF) and Bird Studies Canada (BSC). The Canadian IBA program is part of the Americas IBA program which includes the United States, Mexico, and 17 countries in Central and South America. In the Maritimes the Natural History Society of Prince Edward Island, the New Brunswick Federation of Naturalists, and the Federation

of Nova Scotia Naturalists sponsor the Important Bird Areas Program.

The goals of the Canadian IBA program are to:

- ▶ Identify a network of sites that conserve the natural diversity of Canadian bird species and are critical to the long-term viability of naturally occurring bird populations;
- ▶ Determine the type of protection or stewardship required for each site, and ensure the conservation of sites through partnerships of local stakeholders who develop and implement appropriate on-the-ground conservation plans; and
- ▶ Establish ongoing local involvement in site protection and monitoring.

IBAs are identified under one or more of the following internationally agreed-upon categories:

- 1) Sites regularly holding significant numbers of an endangered, threatened, or vulnerable species.
- 2) Sites regularly holding an endemic species, or species with restricted ranges.
- 3) Sites regularly holding an assemblage of species largely restricted to a biome.
- 4) Sites where birds concentrate in significant numbers when breeding, in winter, or during migration

7.3 Information on the Lead Organizations of the IBA Program

BirdLife International

A pioneer in its field, BirdLife International (BL) is the first non-government organization dedicated to promoting world-wide interest in and concern for the conservation of all birds and the special contribution they make to global biodiversity. BirdLife operates as a partnership of non-governmental conservation organizations, grouped together within geographic regions (e.g. Europe, Africa, and Americas) for the purpose of planning and implementing regional programs. These organizations provide a link to on-the-ground conservation projects that involve local people with local expertise and knowledge. There are currently 20 countries involved in the Americas program throughout North, Central, and South America.

For further information about BirdLife International, check the following website: <http://www.birdlife.net/>.

The Canadian Important Bird Areas Program has been undertaken by a partnership of two lead agencies. The Canadian Nature Federation and Bird Studies Canada are the Canadian BirdLife International partners.

The Canadian Nature Federation (CNF)

The Canadian Nature Federation is a national conservation organization with a mission to be Canada's voice for the protection of nature, its diversity, and the processes that sustain it. The CNF represents the naturalist community and works closely with provincial, territorial, and local affiliated naturalists' organizations to directly reach 100,000 Canadians. The strength of CNF's grassroots naturalists' network allows the organization to work effectively and knowledgeably on national conservation issues

that affect a diversity of ecosystems and human populations in Canada. The CNF also works in partnership with other environmental organizations, government and industry, wherever possible.

CNF's approach is open and co-operative while remaining firm in the goal of developing ecologically sound solutions to conservation problems. CNF's website is: <http://www.cnf.ca>.

Bird Studies Canada (BSC)

The mission of Bird Studies Canada is to advance the understanding, appreciation, and conservation of wild birds and their habitats, in Canada and elsewhere, through studies that engage the skills, enthusiasm and support of its members, volunteers, staff and the interested public. Bird Studies Canada believes that thousands of volunteers working together, with the guidance of a small group of professionals, can accomplish much more than could the two groups working independently. Current programs collectively involve over 10,000 volunteer participants from across Canada.

Bird Studies Canada is recognised nation-wide as a leading and respected not-for-profit conservation organization dedicated to the study and understanding of wild birds and their habitats. Bird Studies Canada's website is: <http://www.bsc-eoc.org/>.

New Brunswick Federation of Naturalists

The Federation is a non-profit organization formed in 1972 to encourage an understanding of nature and the environment, and to focus concern for the natural heritage of New Brunswick <http://personal.nbnet.nb.ca/maryspt/NBFN.html>.

Federation of Nova Scotia Naturalists

The Federation of Nova Scotia Naturalists exists to support the common interests of naturalist clubs, and to represent those clubs at the

provincial level. Its primary activities include the conservation of species and spaces, education, and the sustainable use of resources (<http://www.chebucto.ns.ca/Environment/FNSN/>).

Natural History Society of Prince Edward Island

The Natural History Society of Prince Edward Island is a naturalist group that is particularly interested in natural history issues, conservation, and public education. They record natural events on the island, maintain a bird check list, offer bird identification courses, field trips, conduct bird counts, and record unusual or rare sightings.

7.4 Information on Organizations and Groups

The Pomquet School has already adopted the Piping Plover as their mascot. Presentations about Piping Plover are often given to the school.

The Pomquet Development Authority is interested in local tourism development.

The N.S. Department of Natural Resources is responsible for the management of the provincial park, enforcement of the Protected Beaches Act, the Wildlife Act, and the Endangered Species Act. The regional biologist, Mark Pulsifer, has a great interest in Piping Plover conservation at this site. Moreover, he has carried out work to increase awareness about Piping Plover (web site: <http://gov.ns.ca/natr/wildlife/index.htm>).

A number of local people have been involved in monitoring and the Guardian Program. They have a particular interest in seeing the beach habitat maintained while at the same time being able to use the area. They have formed the Pomquet Piping Plover Working Group.

The Eastern Mainland Field Naturalists have been involved in the Guardian Program and some of its members carry out plover counts.

The lifeguards, although not hired to protect Piping Plover, help to keep an eye on the beach in general, particularly on vehicle problems.

The Nova Scotia Bird Society is a provincially very active bird conservation group. The NS Bird Society has promoted bird appreciation and conservation for at least the last 40 years (website: <http://www.chebucto.ns.ca/Recreation/N.S.-BirdSoc/>).

The Canadian Wildlife Service enforces the Migratory Bird Protection Act. Biologists from the agency are also carrying out research on Piping Plover, such as banding of adults and young. The agency is also the lead group that looks after the recovery efforts for the species in Atlantic Canada. A banding program of Piping Plovers was started in 1998, and has been carried out on a yearly basis since then (website: <http://www.cws-scf.ec.gc.ca/hww-fap/endanger/table.html>).

In Atlantic Canada, the Piping Plover Recovery Team oversees recovery efforts for this species. At the same time, the Piping Plover Working Group gathers all the people that work on Piping Plovers in Atlantic Canada once a year to discuss progress, and possible ways of co-operation. Both groups are closely linked.

7.5 Contact Information

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