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THE RING-BILLED GULL VERSUS FLIGHT SAFETY: A CONTINUING CONFLICT IN ONTARIO, CANADA

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Gulls are a world-wide hazard at airports because of their relatively large size, slow flight, soaring behaviour and gregarious nature (Blokpoel, 1976). In Ontario, this situation has recently worsened by an increasing population of Ring-billed Gulls that will forage at any available food source in inland and coastal areas.

The Ring-billed Gull, Larus delawarensis, is a species that nests only in North America. Nesting colonies are found in southern Canada and in the northern part of the contiguous USA. Birds belonging to the western population breed west of the Manitoba/Ontario border and winter on the Pacific Coast, while birds belonging to the eastern population breed east of that migratory divide and winter along the Atlantic coast. At present, the "heartland" of the eastern population appears to be the Great Lakes area. Ring-billed Gulls nest abundantly in the Ontario side of Lakes Ontario, Erie and Huron, but they are relatively scarce in northern Lake Superior.

Since the mid 1940's the Great Lakes Ring-bill population has shown a tremendous increase (Ludwig 1974) and this increase is still continuing (Blokpoel 1977, Blokpoel et al. 1978 and 1979, Scharf et al. 1978, Weseloh et al. in prep.). The nesting population in the Canadian portion of Lakes Erie and Ontario has jumped from about 55,000 nests in 1976-1977 to about 215,000 nests in 1984 (Table 1). We have no comparable data for Lake Huron but the Ring-bills are becoming more numerous there as well.

This population increase is causing an increasing number of conflicts between gulls and man's interests (Blokpoel 1983). In many parks, schoolyards and marinas the gulls' defecations are a dirty nuisance and in southwestern Ontario many crops (including tomatoes, asparagus, beans and strawberries) have been damaged. The gulls are also a problem at several airports in Ontario, especially at Toronto International Airport, Toronto Island Airport, Canadian Forces Base (CFB) Trenton and North Bay Airport (Fig. 1).

In theory, the best way to solve the various gull problems in Ontario would be to reduce the burgeoning Ring-bill population. In practice, however, there are two problems with such an approach: large-scale gull control is difficult and there is no guarantee that the members of a greatly reduced population would not continue to feed on tomatoes, defecate on park benches and loaf on airport runways.

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*Paper presented at the 17th Meeting of the Bird Strike Committee Europe, held in Rome, Italy, 15-19 October 1984.

Regarding the reduction of a gull population, it is customary to attempt such control by working on the colonies. There are basically two approaches: (1) kill the adults (usually by poisoning) and/or (2) prevent reproduction (destruction of eggs or spraying of eggs to kill the embryo). Because Ring-bills have a long reproductive life (starting in their second or third year and continuing for 10 or more years) the second method will be a very slow one. Ring-billed Gulls are highly mobile animals and they move between colonies. Thus killing of adults on one colony will only make that colony more attractive to newcomers in the next year. A campaign first to reduce the eastern population of the Ring-billed Gulls and then to maintain it at an acceptable level, would be a never-ending undertaking involving great annual expenses. There are no reports of successful efforts to control gulls over a large area (Thomas, 1972).

If a reduction of the eastern population of the Ring-billed Gull is (not yet) feasible, then we have to find local solutions for local problems. Basically, there are two approaches to get rid of gulls in areas where you do not want them: (1) make the area inaccessible to gulls, and (2) scare them away.

Outdoor areas can be made inaccessible to gulls by stretching thin wires or monofilament fishing lines overhead. The thin, taut wires or lines form a more or less invisible ceiling that the gulls are afraid to penetrate. Good success with this method was reported at fish ponds (McAtee and Piper, 1936; Ostergaard, 1981) and at water reservoirs (McAtee and Piper 1936; Amling, 1980). This technique was also employed profitably at public parks in Toronto where the Ring-bills had become a serious nuisance (Blokpoel and Tessier 1984). In addition, monofilament lines were used successfully to prevent Ring-bills from nesting at traditional breeding sites (Blokpoel and Tessier 1983). Efforts to keep Ring-bills from garbage dumps by installing overhead wires met with reasonably good success in New York State (McLaren et al., 1984) and South Carolina (Forsythe and Austin 1984).

In the airport environment, wires or lines can be used to get rid of gulls from nearby garbage dumps, ponds and other gull attractions but runways and taxiways can not be covered by wires. Hence, there is still the need for active gull patrols at several Ontario airports. For the last several years, in line with government policy, the task of scaring birds at some airports has been contracted out to private bird-scaring companies. In most cases, these companies use all conventional scaring methods (shell crackers, live shells, gas-bangers, distress calls) in addition to raptors. Their techniques vary from company to company and the methods used by one company were described in an earlier report (Blokpoel, 1980).

We recently had the opportunity to evaluate the effectiveness of a bird control operator in getting rid of Ring-billed Gulls at a dump site near CFB Trenton (Fig. 1). The frequent (2 or more per day) bird-scaring visits to the Trenton dump resulted in a large reduction in gull numbers as compared to the numbers of gulls present before the bird scaring began and as compared to gull numbers at two control dumps where no bird-scaring took place. The long-term, cumulative effect of the persistent daily harassment of the gulls was a large drop in gull numbers, despite the fact that individual bird-scaring visits had only limited success (Risley and Blokpoel, 1984).

In summary, Ring-billed Gulls will continue to cause problems in Ontario for the next several years. With respect to flight safety, there are at present several methods to reduce problems at or near airports, but they require manpower and funds.

References

Amling, W. 1980. Exclusion of gulls from reservoirs in Orange County, California. Proceedings Ninth Vertebrate Pest Conference, Fresno, California, USA, 4-6 March 1980. p. 29-30.

Blokpoel, H. 1976. Bird Hazards to Aircraft. Clarke, Irwin and Company Ltd., Toronto. 236 p.

Blokpoel, H. 1977. Gulls and terns nesting in northern Lake Ontario and the upper St. Lawrence River. Canadian Wildlife Service Progress Note 75, 12 p.

Blokpoel, H. and G.B. McKeating. 1978. Fish-eating birds nesting in Canadian Lake Erie and adjacent waters. Canadian Wildlife Service Progress Note 87, 12 p.

Blokpoel, H., J.P. Ryder, I. Seddon, and W.R. Carswell. 1980. Colonial waterbirds nesting in Canadian Lake Superior in 1978. Canadian Wildlife Service Progress Note 118. 13 p.

Blokpoel, H. 1980. Gull problems at Ontario airports: no magic solutions. Proceedings First Meeting North American Bird Strike Prevention Workshop, Ottawa, Canada, 17 and 18 Sept. 1980. 30 p.

Blokpoel, H. 1983. Gull problems in Ontario. Information Leaflet. Canadian Wildlife Service, Ottawa, Canada. 9 p.

Blokpoel, H. and G.D. Tessier. 1983. Monofilament lines exclude Ring-billed Gulls from traditional nesting areas. Proceedings Ninth Bird Control Seminar, Bowling Green State University, Ohio, USA, 4-6 October 1983. p. 15-19.

Blokpoel, H. and G.D. Tessier. 1984. Overhead wires and monofilament lines exclude Ring-billed Gulls from public places. Wildlife Society Bulletin 12: 55-58.

Forsythe, D.M. and T.W. Austin. 1984. Effectiveness of an overhead wire barrier system in reducing gull use at the BFI Jedburg Sanitary Landfill, Berkeley and Dorchester Counties, South Carolina. Proceedings Wildlife Hazards to Aircraft Conference and Training Workshop, Charleston, South Carolina, USA, 22-25 May 1984. p. 253-263.

Ludwig, J.P. 1974. Recent changes in the Ring-billed Gull population and biology in the Laurentian Great Lakes. The Auk 91: 575-594.

McAtee, W.L. and S.E. Piper. 1936. Excluding birds from reservoirs and fishponds. U.S. Department of Agriculture Leaflet 120, 6 p.

McLaren, M.A., R.E. Harris and W.J. Richardson, 1984. Effectiveness of an overhead wire barrier in deterring gulls from feeding at a sanitary landfill. Proceedings Wildlife Hazards to Aircraft Conference and Training Workshop, Charleston, South Carolina, USA, 22-25 May 1984. p. 241-251.

Ostergaard, D.E. 1981. Use of monofilament fishing lines as a gull control. Progressive Fish-Culturist 43: 134.

Risley, C. and H. Blokpoel. 1984. Evaluation of effectiveness of bird-scaring operations at a sanitary landfill site near CFB Trenton, Ontario, Canada. Proceedings Wildlife Hazards to Aircraft Conference and Training Workshop, Charleston, South Carolina, USA, 22-25 May 1984. p. 265-273.

Scharf, W.C., G.W. Shugart and M.L. Chamberlin. 1978. Colonial birds nesting on man-made and natural sites in the U.S. Great Lakes. Technical Report D-78-10, U.S. Army Engineer Waterways Experiment Station, Vicksburg, Mississippi, USA, 135 p.

Thomas, G.J. 1972. A review of gull damage and management methods at nature reserves. Biological Conservation 4: 117-127.

Table 1. Estimated numbers of Ring-billed Gull nests at colonies in the Ontario portions of Lake Erie and Lake Ontario. The locations of the colonies are shown in Fig. 1. Colony sizes are rounded off to the nearest hundred. n.d. = no data.

	1976[1]	1977[2]	1984[3]
Lake Erie			
Nanticoke	0	0	12,000
Mohawk Island	n.d.	500	1,000
Port Colborne Breakwall	n.d.	200	1,100
Port Colborne Mainland	n.d.	14,000	42,200
Lake Ontario			
Hamilton Harbour, Hamilton	0	0	11,200
Mugg's Island, Toronto	3,800	n.d.	7,700
Eastern Headland, Toronto	10,400	n.d.	73,600
Bowmanville	0	0	10,700
Gull Island off Brighton	23,700	n.d.	24,000
High Bluff off Brighton	0	0	27,100
Pigeon Island	2800	n.d.	5,000
TOTAL	approx. 55,400		215,600

[1] Data from Blokpoel 1977
[2] Data from Blokpoel et al. 1978
[3] Unpublished data

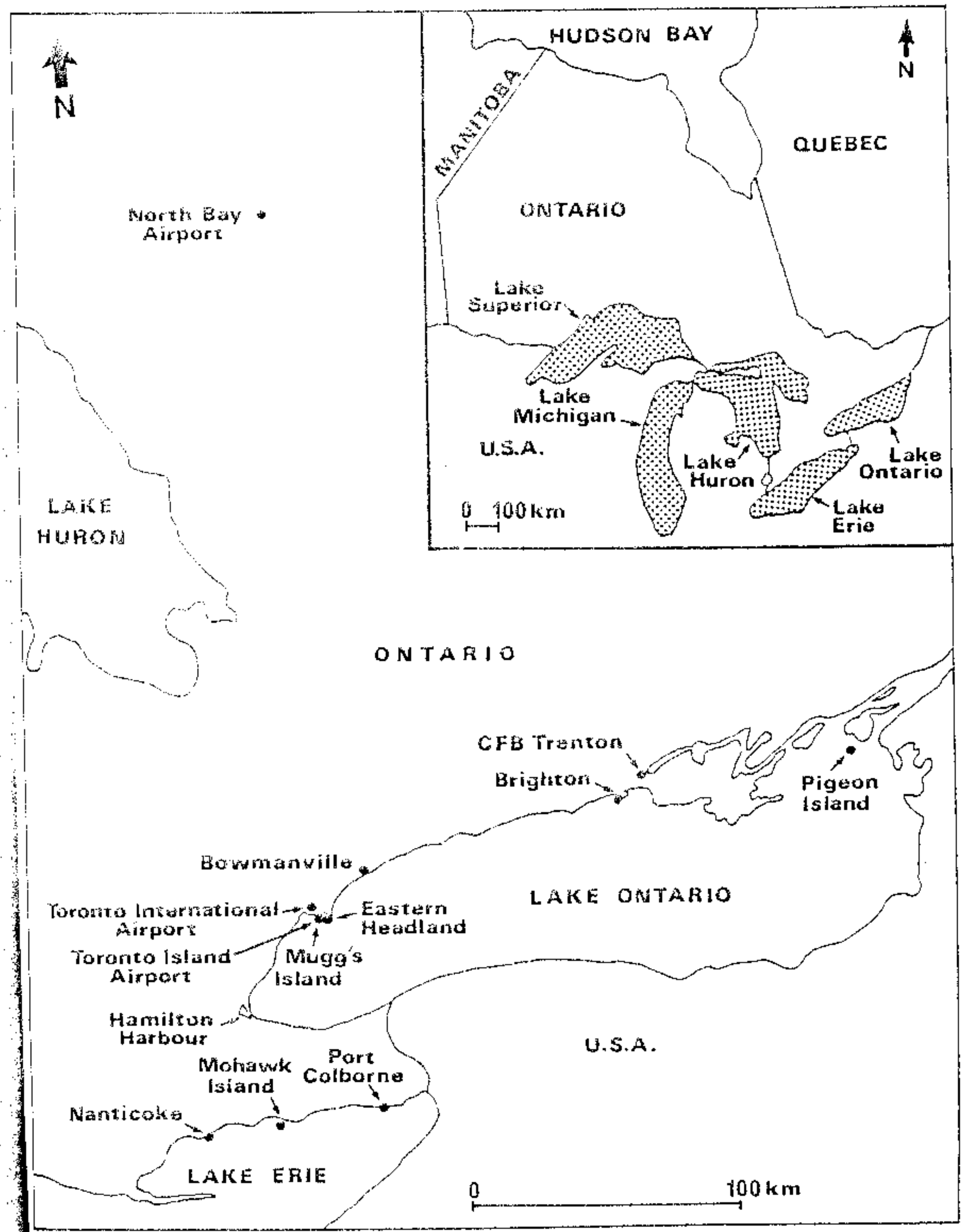

Fig. I Map of Southern Ontario showing locations mentioned in the text. Inset shows all of Ontario and the Great Lakes.