

# A dead end for migrating birds

BY RONALD WEIR  
and PAUL AIRD

*Prof. Weir is a member of the Chemistry and Chemical Engineering Department, Royal Military College, Kingston; Prof. Aird is a member of the Faculty of Forestry, University of Toronto.*

**IN ONE WEEKEND** in September more than 10,000 birds were killed by floodlit smokestacks at Ontario Hydro's Lennox generating station near Kingston. It was a tragedy caused by bureaucratic blunders.

It is well known that night-migrating birds are attracted to bright floodlights.

## 10,000 birds killed in one weekend

In a frenzy they swirl up and down the intense light beams. They crash into the lighted structure, into the light face, and often into each other.

The largest bird kills tend to occur in autumn during conditions of low cloud cover or poor visibility caused by fog, drizzle or moonless nights, and it may also be due in part to the inexperience of young birds on their first migratory flight. It is also known from experience at the Lennox station that the number of birds killed can be dramatically reduced by turning off the floodlights, leaving on

only the bright red construction beacons installed on the chimney tops. In fact this has been done during peak migration periods since 1973.

Environment Canada, through its Canadian Wildlife Service, is responsible for the protection of migratory birds, and through research done by the agency, it is known what types of lighting will reduce the number of birds striking tall obstacles. The hazard to birds caused by floodlighting tall structures can be virtually eliminated by using flashing red beacons or white strobe lights, but Environment Canada can only make recommendations on matters relating to bird safety.

Transport Canada has a different set of responsibilities, priorities and attitudes. It responded to a request from Ontario Hydro to use just the red warning beacons year-round with a request to improve the stack lighting at Lennox. Ontario Hydro then negotiated to install pulsating strobe lights on one chimney and to use its red warning lights on the adjacent chimney, but without success. In July Transport Canada ordered the Lennox stack lighting to be improved immediately.

One would expect such a resource-dependent enterprise as Ontario Hydro to strive not to abuse the nation's natural resources, and certainly it has researched the bird kill problem for many years, and, at least at Lennox, has had the floodlights turned off during migrat-

tion periods. But it has had ample opportunity to replace its floodlights with improved lighting at all generating stations, and has failed to do so. On the other hand, Ontario Hydro's proposal to install strobe lights on one chimney at Lennox and red warning beacons on the other, appears sensible, but was rejected by Transport Canada, which was concerned with aircraft safety (fog often occurs in the Kingston area). The order to improve the stack lighting came too

## Solution simple if people cared

late for the white strobe lights to be installed prior to the fall migration period.

Both the Kingston Field Naturalists and Ontario Hydro pleaded with Transport Canada to modify its order during the fall migration. Despite their pleas, Transport Canada refused to change its order. So the floodlights were turned on.

The combination of the actions and inactions of Transport Canada, Environment Canada and Ontario Hydro was responsible for the setting of a new record of man-caused bird kills for Ontario and Canada. In one night (Sept. 6), 5,818 birds from 24 warbler species, five species of vireos, least bitterns and others — 49 species in all — died. In one weekend more than 10,000 birds were

killed by just two floodlit smokestacks 653 feet tall and 33 feet wide at the top. Almost every bird killed was an insect-eater, the kind we depend on to help control insects in forests and fields.

Immediately following this incident, the floodlights were turned off for repair while the red warning beacons remained on.

The carnage at Lennox is just one example of many where birds are being needlessly killed by floodlighting. There is a myriad of floodlit chimneys, television and radio towers throughout North America. Tall buildings, where the top floors remain lighted, such as Toronto's First Canadian Place, Commerce Court or the Toronto-Dominion Centre, also kill birds.

Canada's annual bird kill due to lighted structures probably amounts to many hundreds of thousands of birds. Most of these kills are needlessly caused by decorative lighting or by tall office buildings unnecessarily lit at night. Only a few are caused by night lights required for aircraft safety.

The problem and the solution: kill the birds or kill the lights. But it is not really that simple. The fundamental problem is that not enough Canadians care about their living resources. Is this because they do not know what is happening to their heritage of wild plants and animals, or because they do not think that what is happening is wrong?