

## INDUCED MIGRATION USING ULTRALITE AIRCRAFT

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In September 1989, I attended part of the twelfth Trumpeter Swan Society Conference in Minneapolis, Minnesota, and screened some film of Canada Geese (*Branta canadensis*) in flight following a boat and an aircraft. William Lishman, pilot of the aircraft, also attended. I suggested that it was feasible to use this same technique to induce Trumpeter Swans (*Cygnus buccinator*) to follow an aircraft. Young swans could then be led cross-country, introducing them to their first migratory flight.

Harry Lumsden, Lishman, and I prepared a proposal organizing a migration flight with Canada Geese as surrogates to Trumpeter Swans. This would provide experience in the logistics of cross-country migratory flight with birds following aircraft.

Trumpeter Swans, at that time, were expensive and scarce in Ontario. Bill Sladen donated seven hybrid swan eggs produced from a cross between a Trumpeter Swan and a Tundra Swan (*C. columbianus*). Lishman flew to Virginia to collect the eggs, which duly hatched, and the young were imprinted on a dummy aircraft.

In the meantime, an article appeared in *Equinox* magazine reporting on the presentation at The Trumpeter Swan Society conference, outlining Lishman's accomplishments getting geese to follow his aircraft, quoting Lishman's lifelong desire to "fly with the birds," and mentioning his previous attempts to accomplish this by chasing ducks with his aircraft.

This statement aroused a half dozen citizens to write to the Canadian Wildlife Service demanding that he be prosecuted for harassing birds under the Migratory Bird Convention Act.

The CWS investigated our activities and organized four separate raids, at my establishment, at Lishman's, and at two of our associate aviculturists'. Lishman very proudly showed off the progress of the project. The officers returned a week later and seized the swans, presumably because they were hybrids not on his property and because they had been imported illegally. We were also supposedly conducting research without a scientific permit; however, according to the legislation, scientific permits are only given to capture or collect birds or eggs from the wild.

The CWS forbade Lishman from doing any further flying with the birds and cancelled, or failed to renew, our avicultural permits. As well, the CWS withdrew permission for Lumsden to release any further Trumpeter Swans in southern Ontario and suggested, instead, that he move his operation to the Hudson Bay Lowlands. When Lumsden prepared a cost estimate for a northern venture and organized support for the original plan, it was reinstated.

In the meantime, Lishman and I parted company as far as flying birds was concerned. I suggested he continue with the plan to migrate geese to Virginia with Sladen, but I wanted to continue to work with the Trumpeter Swans.

Lishman has made three fall migration flights to the U. S. with flocks of Canada Geese. He decided to try a return flight leading the geese north in the spring, but I disagreed with this, maintaining that, in the wild, young birds return whether the family group has remained intact or not. As it turned out, the first group of geese left for the north before he arrived to lead them back.

The following year, Lishman took birds as far as South Carolina. He was planning to fly the return trip with the birds but could not locate them. The birds returned on their own, with a remarkable survival rate of 38 out of 40 birds.

Lishman sold the rights to the migration flight to ABC Television for US\$35,000. He then made a deal with Columbia Pictures for \$500,000 for the rights to his life story. He also received \$1.2 million for re-creating the migration story for the movie *Fly Away Home*.

I was paid \$50,000 to advise on the film and to raise geese for it, as well as for providing a late hatch of 20 Canada Geese, acquired, with permission, as eggs from Baffin Island in the arctic.

While Lishman was busy with his adventures, we continued to raise and release Trumpeter Swans and started to work with an ultralite aircraft on floats, as well as with a bass boat.

In 1993, Lumsden obtained 50 Trumpeter Swan eggs from Alaska, and we hatched and raised 42 birds. Half of the cygnets were imprinted on humans, and

the remainder were raised in isolation. Behavioral observations compared the activities of each group (Eadie *et al.* 1995).

At fledging, the behavioral study was terminated, and the flock of imprinted birds as well as five of the unimprinted birds were taken to Lake Scugog to fly following a boat for photography. While conditioning the imprinted birds, the unimprinted birds were let out of their pen to feed and exercise on their own. These unimprinted birds, without any inducement, began to follow the boat and the other birds.

The unimprinted birds were soon flying with the boat more consistently than the imprinted birds. We had noticed similar behavior occasionally in the past with several Canada Geese. This following response appears to intensify at fledging. Similar behavior in Greylag Geese (*Anser anser*) was noted by Lorenz (1978).

We have obtained major support from Falconbridge Limited, a large nickel-producing company, to design

and build an aircraft suitable for leading swans in an attempt at a major cross-country flight. The pilot of this endeavor is Wayne Bezner-Kerr, who formerly flew Sandhill Cranes (*Grus canadensis*) for Lishman. He is now working on his master's degree on induced migration.

We are open to suggestions or candidates for a suitable starting point and wintering destination.

#### LITERATURE CITED

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