

Flight speed of Arctic and Red-throated Loons.—The literature contains few records of loon flight speeds. Bent (U. S. Natl. Mus., Bull. 107, 1919) visually estimated the speed of the Common Loon (*Gavia immer*) at about 60 mph. Preston (Wilson Bull., 63: 198, 1951) calculated the speed of a Common Loon he followed in a car at 62 mph. Pittman (Wilson Bull., 65: 213, 1953) estimated the air speed of a Common Loon in a 15-degree dive at between 80 and 100 mph. Dixon (Auk, 33: 373, 1916) timed the Yellow-billed Loon (*G. adamsii*) at speeds of at least 40 mph on migration. I find no published records of the flight speed of the Arctic Loon (*G. arctica*) and the Red-throated Loon (*G. stellata*).

Substantial populations of Arctic and Red-throated Loons breed near the McConnell River, Keewatin District, Northwest Territories (60° 50' N, 94° 25' W). Both species nest on inland ponds and make regular feeding flights down the McConnell River to Hudson Bay.

We measured a 250-m course parallel to a straight section of the river and placed lines of flags at right angles to each end of it. Observers stationed at each end of the course and in contact by two-way radio timed the loons with a stopwatch as they passed between the flag sight-lines. Most loons flew low along the river, and we timed only those that flew less than 4 m above the water. Immediately after timing each flight we measured the wind speed at a height of 1 m with a hand-held wind gauge.

On 9 August 1968 wind speeds ranged from 13 to 24 kph directly against the loons' flight. Though the ground speeds of 10 Arctic Loons we measured that day ranged from 43 to 60 kph, their mean air speed was 71 ± 6.8 kph (44.4 ± 4.23 mph; range 36.6 to 49.5 mph). We clocked and calculated the air speeds of two Red-throated Loons at 75 and 78 kph (47.1 and 48.8 mph). We believe these calculated air speeds are accurate within 2 or 3 kph.

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A technique for sampling blood from small passerines.—It is sometimes necessary to obtain blood samples without introducing an aqueous borne anticoagulant into the sample (e.g. isotope dilution measurements). The method described here is often used on small mammals, but it is not yet widely used on birds and is suggested as an alternative to present methods.

Sampling from the jugular vein (Kerlin, J. Amer. Vet. Med. Assoc., 144: 870, 1964) is widely practised and is satisfactory for many studies. Our attempts to use this method without heparin resulted in hematomas for most birds and mortality in many cases. These results appear incompatible with the requirement that the birds be relatively unaffected by the sampling procedure and that a second sample be taken in less than 24 hours.

Another accepted technique is a heart puncture through the furcular region. This is a basic technique used in the laboratory on gallinaceous and columbiform birds (P. N. Brody, pers. comm.). We were unsuccessful in attempts to obtain blood from small passerines without mortality using this technique. The procedure has been used with success, however, by H. W. Kale II (pers. comm.) and R. E. Kerlin (pers. comm.).

The alternative method involves a heart puncture through the sternum. The bird is held in one hand with the head aimed toward the worker and the feet restrained firmly