

# An Alternate Method of Netting Shorebirds in the Canadian Subarctic

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## ABSTRACT

Mist netting and color flagging of shorebirds was conducted at Churchill, Manitoba, 29 May through 6 June 1990. A total of 157 White-rumped Sandpipers (*Calidris fuscillis*), 91 Semipalmated Sandpipers (*Calidris pusilla*) and 26 Dunlin (*Calidris alpina*) were caught and marked. The method used to capture shorebirds consisted of holding a mist net horizontally between two people, then taking up a position between two discrete flocks of shorebirds. As members of the two flocks interacted by flying back and forth, they were netted by swiftly elevating the net to a vertical position.

## INTRODUCTION

Attempts to net shorebirds along Canada's Hudson Bay have met with varying success (pers. comm. Morrison, Dickson, et al.). Problems encountered include an omnipresent wind that flaps the nets, rendering them highly visible to shorebirds; lack of intensity of nighttime darkness during the spring, so that nets remain visible; and the potential for the intrusion of Polar Bears (*Ursus maritimus*) onto the netting sites. All three situations restrict the conventional method of spreading mist nets between fixed vertical poles.

An exception occurs when the wind calms (an extremely rare occurrence). At such times, feeding shorebirds can be herded towards fixed nets and made to flush into them. However, continued practice of this method aggravates the birds and they frequently flee the site. Consequently, an alternate method of netting had to be devised.

## LOCATION

The netting area is located at Cape Churchill, Manitoba, and consists of an unnamed bay of Hudson Bay. The bay is estimated at some 600 m wide and 800 m long. The shoreline of the bay was melted for a width of approximately 15 m. At low tide the water, which retreats under

the pack ice, drains the shoreline exposing a mat of aquatic vegetation, predominantly kelp. Shorebird flocks feed vigorously along the entire bared shoreline.

## MATERIALS

Two different sizes of 1½ inch weave nylon mist nets were utilized: a 1 x 14 m sand-colored net and a 2.5 x 14 m white net. Jointed aluminum poles 3 m long and 2.5 cm in diameter were used to support the nets. In turn, electric fence posts 1.5 m long and 8 mm in diameter were driven into the pack ice to hold the poles in a vertical position after shorebird capture.

## METHODS

Regardless of width, all nets used were 14 m long. With this in mind, two electric fenceposts were driven 14 m apart into the pack ice offshore approximately 20 m from the shoreline and attendant feeding shorebirds.

Either a 1 x 14 m or a 2.5 x 14 m mist net was then opened between two aluminum poles and held taut by an individual holding each pole. Next, while holding the net parallel to the ground to reduce visibility, the net was positioned perpendicular to the shoreline between two discrete shorebird flocks. As shorebirds flew between the two flocks, the majority paralleled the narrow melted shoreline. When they were closing at the proper distance, the net was quickly swept upwards, causing the birds to collide and become entangled before they could take evasive action. The net was then maintained in a taut configuration and placed over the electric fence posts. Doing so freed the individual's hands for removal of the shorebirds from the net.

## DISCUSSION

The method of netting described (swoop-netting, as it was coined) would appear to work only in areas where the

shorebirds' feeding area is narrow, limited laterally and bordered by non-feeding habitat. Otherwise, it would seem plausible that the shorebirds could disperse to distant locations if bothered sufficiently. This was our reoccurring concern when Peregrine Falcons (*Falco peregrinus*) would quite routinely stoop upon the feeding shorebirds, sending them swirling away. But apparent lack of alternate feeding habitat always brought them back to the netting site.

The importance of swoop-netting between discrete flocks of shorebirds cannot be overstated. Trying to separate a single flock into two sub-groups worked poorly, for as long as the birds could see and hear flockmates, they were content to continue feeding and did not regularly fly between their sub-groups.

Netting between unrelated flocks (same or differing species) was the most productive strategy. There was a fairly continual temporary interchange of flock members back and forth.

When positioning a hand-held net between such flocks, it was noted that holding the net horizontally and walking slowly into the sparsely populated "no-peeps land" between the two flocks rarely flushed them. If flushed, they always returned.

As shorebirds were caught, the impact would cause the birds and net to loop upwards and over the top of the net, striking it a second time. At first glance, the birds seemed hopelessly snarled in two tiers of netting; however, we learned that whenever this happened we had but to smartly swing the ensnared birds back again in the direction of initial impact and they would unwind and end up caught in only one tier of webbing, affording easy removal. Swinging the net was a coordinated effort by the two individuals holding opposing poles vertically. Of paramount importance during the whole netting and swinging procedure was to keep the net taut at all times!

We found it best to tape the net loops directly onto the poles, rather than relying on hooks or tying knots.

After some practice, netters were routinely capturing from 5 to 15 shorebirds at a swoop.

