Body Weight, Wing Chord and Tail Measurements of *F.p. tundrius* captured in Rankin Inlet, Nunavut

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The 450km^2 study area encompasses the town of Rankin Inlet, Nunavut. The Hudson Bay accounts for nearly half (44%) of the study area. It remains frozen well after egg-laying has commenced. In the spring cliffs are often snow covered which may temporarily restrict the location that peregrines choose to scrape.

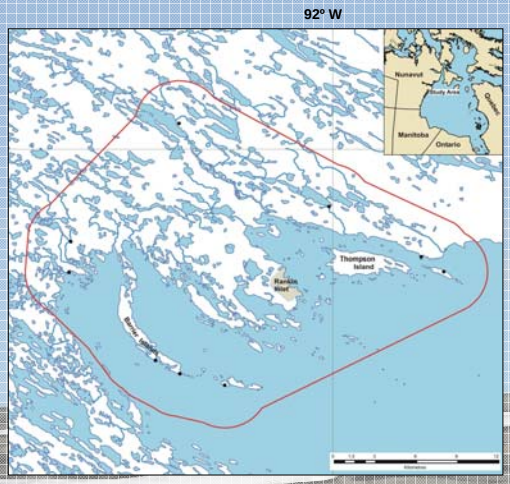

Figure 1. Rankin Inlet Study Area

Between 1982 and 2005 50 adult male and 120 female peregrines were captured/recaptured in the spring (prior to July 1) and/or summer (after July 1). Wing chord (unflattened), tail length and body weight were recorded.

We examined spring and summer measures for each sex to test (one-tailed T-test, $\alpha = 0.05$) the hypothesis that adult peregrines undergo a reduction in body weight over the course of a breeding season.

Figure 2 Recording body weight

Figure 3 Recording wing chord

Adult Females

	Wing Chord (mm)		Tail Length (mm)		Body Weight (g)	
	Spring (N)	Summer (N)	Spring (N)	Summer (N)	Spring (N)	Summer (N)
Rankin Inlet	362 ± 7 (41)	363 ± 7 (50)	170 ± 11 (42)	169 ± 10 (51)	1001 ± 84* (57)	952 ± 73* (42)
White '68	352.4 ± 6.4 (66)		168.6 ± 5.6 (71)		952.0 (19)	

*denotes significance

Adult Males

	Wing Chord (mm)		Tail Length (mm)		Body Weight (g)	
	Spring (N)	Summer (N)	Spring (N)	Summer (N)	Spring (N)	Summer (N)
Rankin Inlet	316 ± 5 (27)	317 ± 7 (30)	145 ± 8* (27)	140 ± 8* (29)	634 ± 37* (32)	607 ± 34* (27)
White '68	308.3 ± 4.7 (65)		140.2 ± 4.9 (63)		610.9 (12)	

*denotes significance

Male and female peregrine falcons breeding near Rankin Inlet on the west coast of the Hudson Bay undergo significant loss of body weight (about 5%) over the course of the breeding season. Overall mean body weight for male and female peregrines was 625g (N= 57) and 962g (N=120) respectively. Body weights for both sexes reported by White (1968) are more reflective of those recorded in summer (952g) than spring (1001g).

Males appear to have shorter tails in summer than in spring which may be related to molt. Both males and females appear to be longer winged (about 1 cm longer) than those described in White (1968).

Further morphometric comparison of other populations of *F.p. tundrius* (e.g. Greenland) and populations of *F.p. anatum* (e.g. Alaska) may provide additional insight into whether *F.p. tundrius* is a true sub-species or part of a geographic kline. These data would be useful when examined together with genetic studies comparing sub-species classification.

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