# Notes on the Food of the Gyr Falcon Falco rusticolus in North-east Greenland in 1972

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(Med et dansk resumé: Bemærkninger om Jagtfalkens Falco rusticolus føde i Nordøstgrønland i 1972)

SALOMONSEN (1950) has summarised the diet of the Greenland Gyr Falcon Falco rusticolus. Most of the available birds and mammals are taken as prey, and the most important are Ptarmigan Lagopus mutus Snow Bunting Plectrophenax nivalis (especially when in autumn flocks), sea birds (gulls, terns, auks), Lemming Dicrostonyx groenlandicus and Hare Lepus arcticus. Lemmings are an important food item and Gyr Falcon numbers in NE Greenland are said to fluctuate with those of Lemming. Long-tailed Skua numbers fluctuate in a similar manner and rarely breed when Lemmings are scarce.

In 1972 a pair of Gyr Falcon bred near Mestersvig, NE Greenland, 72° 16'N, 23° 55'W, and reared four young. The same nest site had been occupied in previous years and in 1970 3 young were reared. In 1970 Lemmings were abundant, but in 1972 none were recorded, and Long-tailed Skuas did not remain to breed. Ptarmigan were uncommon in both years and apart from small colonies of Arctic Terns Sterna paradisaea and Glaucous Gulls Larus hyperboreus there are no sea bird colonies within 100 km of the site. It was therefore of interest to discover what prey the falcons were taking in 1972.

Fig. 1. Well grown Gyr Falcon chick. Note the mosquitos attacking head and feet. Photo: R.W.S. Stor unge af Jagtfalk. Bemærk myggene på hoved og ben.

Dansk orn. Foren. Tidsskr. (1974) 68: 87-90.

### RESULTS

On 22 July 8 pellets and 15 prey items were collected from the Gyr Falcon's nest (Fig. 1); 8 pellets and 7 prey items were collected from a nearby perching stone (Fig. 2). The pellets were measured, photographed and analysed (Table 1).

The pellets collected from the nest had probably been produced by the nestlings.



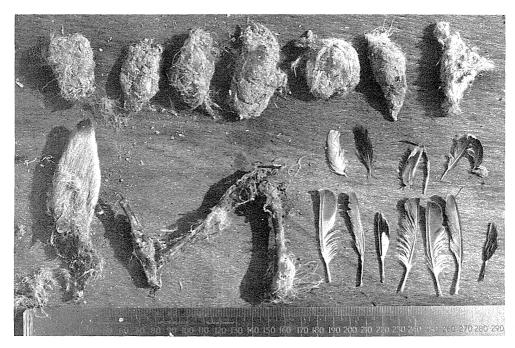


Fig. 2. Pellets and prey remains from Gyr Falcon's nest. Photo: R.W.S. Gylp og bytterester fra Jagtfalkens rede.



Fig. 3. Pellets and prey remains from Gyr Falcon's perching stone, Photo: R.E.S. Gylp og bytterester fra Jagtfalkens plukkesten.

Table 1. Results of analysis of pellets from Gyr Falcon nest and nearby perching stone. Resultater af analyse af Jagtfalkens gylp.

| No.                             | Dimen-<br>sions<br>mms.  | Matrix  | Remains of<br>Lepus arc-<br>ticus |             |       |                | Remains of<br>Plectrophe-<br>nax nivalis |      |           |        |                         |            |           |         | Remains of<br>Dicrostonyx<br>groenlandicus |           |       |      |            |       |           |
|---------------------------------|--|---|-----------------------------------|-------------|-------|----------------|--|------|-----------|--------|-------------------------|------------|-----------|---------|--|-----------|-------|------|------------|-------|-----------|
|                                 |  |   | Claw                              | Foot bones  | Teeth | Bone fragments | Claws                                    | Feet | Leg bones | Quills | Contour feathers        | Wing bones | Rectrices | Remiges | Skull                                      | Lower jaw | Teeth | Foot | Limb bones | Claws | Vertebrae |
| COLLECTED AT THE NEST           |  |   |                                   |             |       | Ω              |  |      |           |        | SL                      |            |           |         |  |           |       |      |            |       |           |
| 1<br>2<br>3<br>4<br>5<br>6<br>7 | 40x30x18<br>45x25x15<br>45x27x20<br>60x30x15<br>50x25x20<br>40x20x15<br>45x20x18 | Hare fur Hare fur Hare fur Hare fur Hare fur Hare fur | 1<br>4<br>2<br>1                  | 6<br>1<br>4 | l l   | 11             | 2  |      |           | 6      | 2<br>3<br>12<br>28<br>6 | 3 2        | 1         | 1       |  |           |       |      | 3          |       |           |
| 8 .                             | 35x28x10   | Hare fur  |                                   |             | -     |                |  |      |           |        | 5                       |            |           | _       |  | _         | _     |      | _          |       |           |
| FRO                             |  |   |                                   |             |       |                |  |      |           |        |                         |            |           |         |  |           |       |      |            |       |           |
| 1                               |  | Snow Bunting  |                                   |             |       |                |  | 4    | 3         |        |                         |            |           |         |  |           |       |      |            |       |           |
| 2                               |  | Snow Bunting  |                                   |             |       |                |  | 1    | 1         |        |                         |            |           |         |  |           |       |      |            |       |           |
| 3                               |  | Lemming fur   |                                   |             |       |                |  | 1    |           | 1      |                         |            |           |         |  |           |       |      |            |       |           |
| 4                               |  | Lemming fur<br>Snow Bunting                           |                                   |             |       |                |  |      |           |        |                         |            |           |         | 2  | 4         |       | 1    |            |       |           |
| 5                               | 40x22x15   |   |                                   |             |       |                |  |      |           |        |                         |            |           |         | "  |           | 2     |      | X          |       | Х         |
| 7                               |  | Snow Bunting  |                                   |             |       |                |  | 2    | 2         |        |                         |            |           |         |  |           | 1     |      | A          |       | ^         |
| 8                               | 63x21x20   | _   |                                   |             |       |                |  | _    |           |        |                         |            |           |         |  |           |       |      |            |       |           |

They had a matrix of hare fur and contained the feet, bones and feathers of Snow Buntings. Prey remains from the nest were the ear and hind leg of a young Hare, and the wing and tail feathers with sheaths still present on the rachis of juvenile Snow Buntings.

Prey remains found at the perching stone were hind-quarters of a half grown Hare, the distal half of a Snow Bunting wing and the sternum, wing feathers and a down feather from Ptarmigan. The pellets found at the perching stone had matrices of Snow Bunting feathers (5 pellets) and Lemming fur (3 pellets). They contained the feet and bones of Snow Buntings and the bones and skulls of Lemmings. It is probable that some of the pellets were from previous years, as pellets decompose very slowly in the arc-

tic environment. Many old Long-tailed Skua pellets, packed with Lemming bones were found in 1972.

## DISCUSSION

A pair of Gyr Falcons bred in 1972 near Mestersvig and reared a brood of 4. The fledged birds were seen later in the season. The young were fed with Arctic Hare and Snow Buntings, both of which were quite common in the neighbourhood. In 1972 no Lemmings were seen or trapped and their remains were not found at the nest. Therefore unlike the Longtailed Skuas, which are completely dependent on Lemming as food during the breeding season, Gyr Falcon breed successfully when there are none.



Fig. 4. Head of Gyr Falcon chick. Photo: R.W.S. Jagtfalkeungens hoved.

The young falcons were well grown (Figs. 3 and 4) when the nest was visited and the small number of pellets and prey remains at the nest suggest that the birds practice nest sanitation.

#### **ACKNOWLEDGEMENTS**

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#### DANSK RESUME

Bemærkninger om Jagtfalkens Falco rusticolus føde i Nordøstgrønland i 1972

På grundlag af fund af gylp og andre byt-

terester beskrives Jagtfalkens Falco rusticolus føde hos et ynglepar nær Mestersvig i 1972. I modsætning til 1970 var 1972 et Lemming-fattigt år. Normalt udgør Lemminger en betragtelig del af Jagtfalkens føde, men trods manglen dette år, kunne parret opfostre fire unger, hovedsagelig på grundlag af Snehare, Fjeldrype og Snespurv. Den Lille Kjove Stercorarius longicaudus yngler som regel ikke i år uden. Lemminger, men Jagtfalken kan altså klare sig med andre byttedyr, se fig. 1 og 2 samt tabel 1.

#### REFERENCE

SALOMONSEN, F., 1950: Grønlands Fugle (The Birds of Greenland). København.

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