

Ainsi les Pipistrelles sont susceptibles de copuler au printemps, après s'être éveillées de leur torpeur hivernale.

Si nous avons pu observer et décrire partiellement l'accouplement chez le Grand Rhinolophe et la Pipistrelle, si de nombreux auteurs ont apporté d'intéressantes précisions sur la biologie sexuelle des Chiroptères, bien des questions se posent encore, concernant les mœurs reproductrices de ces Mammifères.

Quels sont, en particulier, les préliminaires de l'accouplement? Plusieurs naturalistes signalent des poursuites, voire des cris d'appel particuliers. J'ai été moi-même témoin de semblables poursuites, au vol, en aout 1960 à Pontault (Seine-et-Marne) et au printemps 1961 à Montoire (Loir-et-Cher). Quoique rien ne prouve que l'on soit en présence d'un comportement sexuel, il semble que l'on puisse attribuer à ces évolutions crépusculaires une signification érotique, à moins qu'il ne s'agisse de réactions d'agressivité et de comportement territorial.

Wallin (1961) a, en effet, observé des phénomènes de cet ordre, chez les *Myotis daubentoni* (Kuhl, 1819) femelles chassant au dessus des eaux.

#### BIBLIOGRAPHIE

Wallin, L., 1961: Territorialism on the hunting ground of *Myotis daubentoni*. Säugetierkd. Mitt., 9, 4: 156—159. München.

Canbault, 30 Rue des Charmilles, France.

Gabriela BUJALSKA

#### CASES OF SACRALISATION OF THE FINAL LUMBAR VERTEBRA IN THE EUROPEAN HARE, *LEPUS EUROPAEUS* PALLAS, 1778

#### PRZYPADKI SAKRALIZACJI OSTATNIEGO KRĘGU LĘDŹWIOWEGO U ZAJĄCA SZARAKA, *LEPUS EUROPAEUS* PALLAS, 1778

Pelvises of outstanding asymmetry, caused by unilateral sacralisation of the final lumbar vertebra (Bujalska, 1961) were found in the material examined, which consisted of pelvises and sacra of the European hare from Western Poland, from the years 1958—60.

The cases of bilateral sacralisation described below occurred in the same material. This phenomenon was noted in 7 hares (4 ♂♂ and 3 ♀♀), which forms 1.2% of the whole material.

The absence in the specimens examined of the *pars lumbalis* of the spine made it impossible fully to prove sacralisation, but a great many data argue in favour of the existence of this phenomenon:

1. *Facies auricularis* in all cases are composed of two vertebrae, whereas normally they are formed by one vertebrae only (Photo. 1a, b, Plate LV). Increase in the number of vertebrae forming *facies auricularis* in the case of sacralisation was observed by Pilarski & Roskosz (1959) in *Alces alces* (Linnaeus, 1758) and Roskosz (1962) in *Bison bonasus* (Linnaeus, 1758).

2. The upper margins of the wings of the sacrum are very elongated and pointed, whereas normally they are more rounded (Photo. 2a, b, Plate LV).

3. The ventral surface of the shaft of the first sacral vertebra is not included in the concavity typical of the whole sacral bone (Pilarski & Roskosz, 1957; Roskosz, 1962).

4. There is a distinct *crista ventralis*, characteristic of the lumbar vertebrae, on the ventral surface of the first sacral vertebra (Pilarski & Roskosz, 1957; Roskosz, 1962). This crista is very weakly developed in a young female (about 6 months old female no. 647).

5. With the exception of two young females: Coll. no. 78 and 647, the *promontorium* between the second and first sacral vertebrae is extremely distinct (Bujalska, 1961).

The fact of the relatively large number of specimens in which the phenomenon of sacralisation, both bi- and uni-lateral, occurs (over 20%), is striking. Roskosz (1962) observed the sacralisation of the final lumbar vertebra in over 30% of the specimens of *Bison bonasus* examined, this phenomenon being noted, however, only in bison of the lowland line. With our state of knowledge as it is at present, it is difficult to give the reasons for the sacralisation of the final lumbar vertebra. It has been described so far in animals living in freedom in a small number of cases only (in addition to the above this anomaly of the pelvis was described by Reed (1943), in *Sorex*).

#### REFERENCES

- Bujalska, G., 1961: Fälle von Asymmetrie des Beckens und des Kreuzbeins beim *Lepus europaeus* Pallas, 1778. Acta theriol. 4, 14: 279—281. Białowieża.  
 Pilarski, W & Roskosz, T., 1957: Zjawisko ukrzyżowania (*sacralisatio*) ostatniego kręgu lędźwiowego u samic żubra, *Bison bonasus* (L). Folia morphol., 8(16): 109—119. Warszawa. —, 1959: Beobachtungen über den Rumpfabschnitt der Wirbelsäule des Elches, *Alces alces* (L.). Acta theriol., 3, 1: 1—16. Białowieża.  
 Reed, C. A., 1943: Unilateral displacement of the innominate bone in *Sorex*. J. Mammal., 24, 3: 396—397. Baltimore.  
 Roskosz, T., 1962: Morphologie der Wirbelsäule des Wisents, *Bison bonasus* (Linnaeus, 1758). Bisoniana VII. Acta theriol. 6, 5: 113—164. Białowieża.

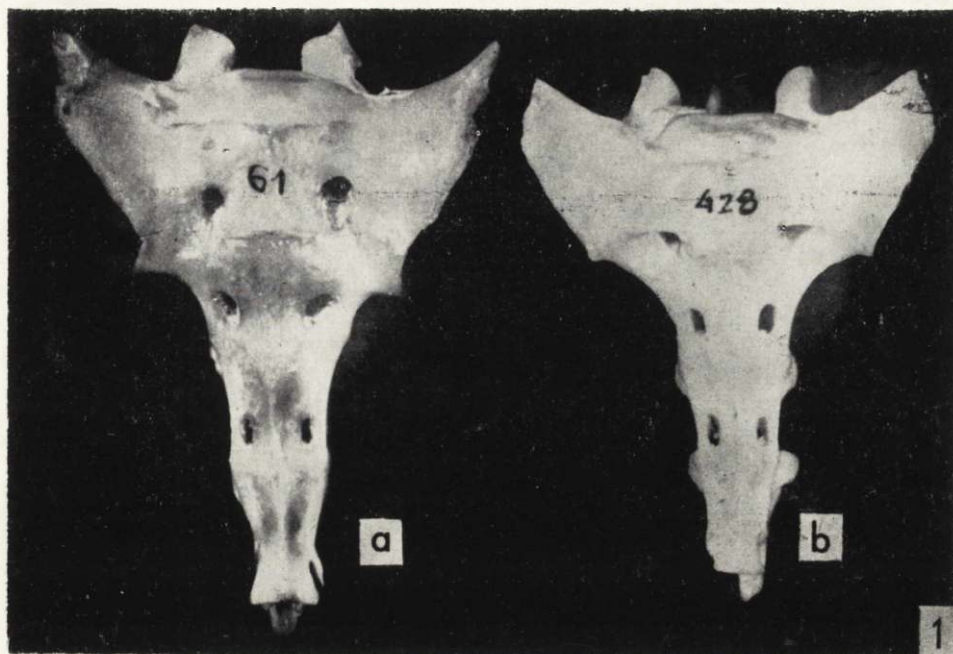
Mammals Research Institute, Polish Academy of Sciences, Białowieża.

#### EXPLANATION OF PLATE

##### Plate LV.

Photo. 1. *Os sacrum*, ventral view. a) Sacralisation of the final lumbar vertebra, b) normal.

Photo. 2. *Os sacrum*, lateral view. (Lettering as above).



G. Bujalska

L. Grün phot.