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The Food of the Danish Badger (Meles meles danicus Degerbøl) with special reference to the summer months

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THE FOOD

OF

THE DANISH BADGER

(MELES MELES DANICUS DEGERBØL)

WITH SPECIAL
REFERENCE TO THE SUMMER
MONTHS

BY

JOHS. ANDERSEN

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PREFACE

The present study of the food of the badger was carried out at Vildtbiologisk Station, Kalø (The Game Biology Station, Kalø). Jagtfonden (The Game Foundation) defrayed the expenses involved.

Several persons have helped to procure badgers and I extend my thanks to all game advisers, authorized fox hunters and private persons who have provided material and in particular to Count G. AHLEFELDT-BILLE, Chief Game Warden.

The stomach contents were sorted out by EGON SØRENSEN, game adviser and CARSTEN PEDERSEN, stud. mag.

In most cases the identification of the more or less chewed up and digested food remains necessitated an intimate acquaintance with the food constituents in question, and assistance was obtained from various specialists.

Remains of mammals were identified by P. VALENTIN JENSEN, cand. mag. (Zoological Museum, Copenhagen); eggs and birds by BERNT LÖPPENTHIN, mag. sc. & cand. med. (Copenhagen); insects by B. SCHJØTZ-CHRISTENSEN, cand. mag. (Natural History Museum, Århus); snails and slugs by P. BONDESEN, dr. phil. (Natural History Museum, Århus). Also Mr. U. MØHL HANSEN (Zoological Museum, Copenhagen) has assisted in special cases.

The photograph were taken by K. ULFKJÆR, assistant at The Game Biology Station.

The manuscript was translated by C. OVERGAARD NIELSEN, dr. phil. (Molslaboratoriet) who has also been helpful in various ways during the analysis of the material.

It is a pleasure for me to extend my sincere thanks to all the sportsmen and zoologists who have placed their help at my disposal.

INTRODUCTION

The badger (*Meles meles danicus*) occurs all over Denmark with the exception of certain islands.

In the opinion of game managers and sportsmen it is supposed to cause heavy losses to various game species; especially its predation upon eggs and chicks of pheasant and partridge is emphasized. The game keepers of the estates, in particular, consider the badger an enemy. During the last decades this belief has been stimulated by the game advisers who all over the country have called for increased countermeasures against the badger. In 1936 it was attempted to intensify this activity through the formation of an organized body of authorized fox hunters (so-called »gravjægere«), i.e. a group of about 100 hunters with the necessary equipment for exterminating foxes and badgers. The help of this body can be obtained by landowners having foxes or badgers on their grounds. The hunters are paid according to the number of foxes and badgers killed, part of the payment being contributed by the Game Foundation.

The administration of the Game Foundation lodges with the Ministry of Agriculture and to some extent the extermination of badgers is, therefore, Government sponsored.

The activity of the authorized fox hunters is now chiefly directed towards foxes, only few badgers being killed in this way—about 100 per year among a total of about 2,500 badgers killed per year in Denmark.

The appearance, in 1948, of GÖSTA NOTINI's book »Biologiska Undersökningar över Grävlingen (*Meles meles*)« (Biological Studies on the Badger) aroused a renewed interest in the problem. On the basis of analyses of stomach contents, observations in the field, and cage experiments the author concluded that in Sweden the badger would have no influence at all on the game population. Somewhat hurriedly it was concluded in this country that the Danish badger was equally harmless.

No attention was paid to the different environmental situation in Sweden and Denmark. While Sweden belongs to the Boreal Coniferous-Forest-Area Denmark is entirely within the Mid-Boreal Region characterized by deciduous forests. In

other words, the environments of Swedish and Danish badgers are widely different, and the opportunities offered an omnivorous animal are not identical in the two countries.

The bonus arrangement operating until now was suspended in 1950. This step was severely criticized by sportsmen and game managers, and the Ministry of Agriculture and Jagtrådet (The Game Board) requested the Game Biology Station to carry out an investigation supplementing the Swedish one and so to produce factual evidence of the feeding biology of the badger in Denmark with special regard to its relation to the game species.

The simplest way of studying the feeding biology of wild animals leads through an analysis of the stomach contents of a large number of individuals. It is also justified to do so when appropriate attention is paid to the obvious shortcomings of the method. The analysis will disclose the true food items and some accidental items. However, it is necessary also to consider some items not present but presumably available. A certain amount of judgment enters into the picture especially in the detection of items not taken in spite of their presumed availability.

COLLECTION OF THE MATERIAL

In 1950 the Game Biology Station contacted a large number of persons in order to obtain badgers for examination. Circulars were sent to game keepers and foresters, and the game advisers encouraged hunters and sportsmen to support the investigation by placing the killed badgers at our disposal.

It was a condition that the badgers had been killed early in the morning (during the day or in the evening the stomach is empty). The hunters might keep the pelt while the carcass had to be sent to the Station. The freight was paid and in addition the Station paid a bonus of kr. 20.– for each badger.

From the summer of 1950 until August 1952 the Station received about 400 badgers. However, only about half this number contained an amount of food in the stomach sufficient for a profitable analysis.

In spite of the fairly good bonus it took some trouble to obtain this number of badgers. We had to maintain a constant propaganda, and a personal contact with several key persons was necessary.

The crucial point was to obtain badgers which had been killed at the right time of the day, i.e. early in the morning when they return from the night's foraging.

The numbers of badgers obtained during the different months and years

appear from the list on p. 62–73. It is seen that the greater part of the material originates from the summer months, the reason being that it is extremely difficult to obtain badgers from the early morning during the remaining part of the year, and also that the collection of material was especially intense during the summer because of the special aims of the study.

The material from the period May–August (incl.) is so large that it can be considered fairly representative. Only eight badgers were killed in September but the stomach contents showed such high degree of homogeneity that they have been included in the diagram (fig. 2).

From the winter months only few badgers with stomach contents became available but they confirmed the impression of the badger being an omnivorous animal. The material from January–March has been treated separately. Unfortunately only one badger is available from the period May 1–13.

TECHNIQUE

On arrival of a badger the stomach was removed and preserved in formalin.

Also the genital organs of the females were kept, and a material has been accumulated that may throw some light on certain aspects of the breeding biology of the badger when it has been fully analyzed.

The skeletons of all animals not severely damaged were deposited in the Zoological Museum, Copenhagen.

When the stomachs had been kept in formalin for some time the contents were roughly sorted into various categories, earthworms, amphibia, insects, birds and birds' eggs, mammals, snails and slugs, reptiles, oats and other plants.

This first sorting was commenced by Mr. EGON SØRENSEN and completed by Mr. CARSTEN PEDERSEN. Also the measurements of the volumes of the different food constituents were carried out by the latter. The technique consisted in measuring the volume of the individual categories from each badger in a measuring cylinder after sedimentation in water.

The accuracy of the method is not very high, especially not when one is dealing with larger portions. However, no better method could be applied, and the amounts of the various food items were also described by counting the number of individuals whenever possible.

The volumes of the different categories appear to be relatively small considering the number of individuals present. However, the sorting was preceded by a washing process on a fine mesh sieve. During this process a fair amount

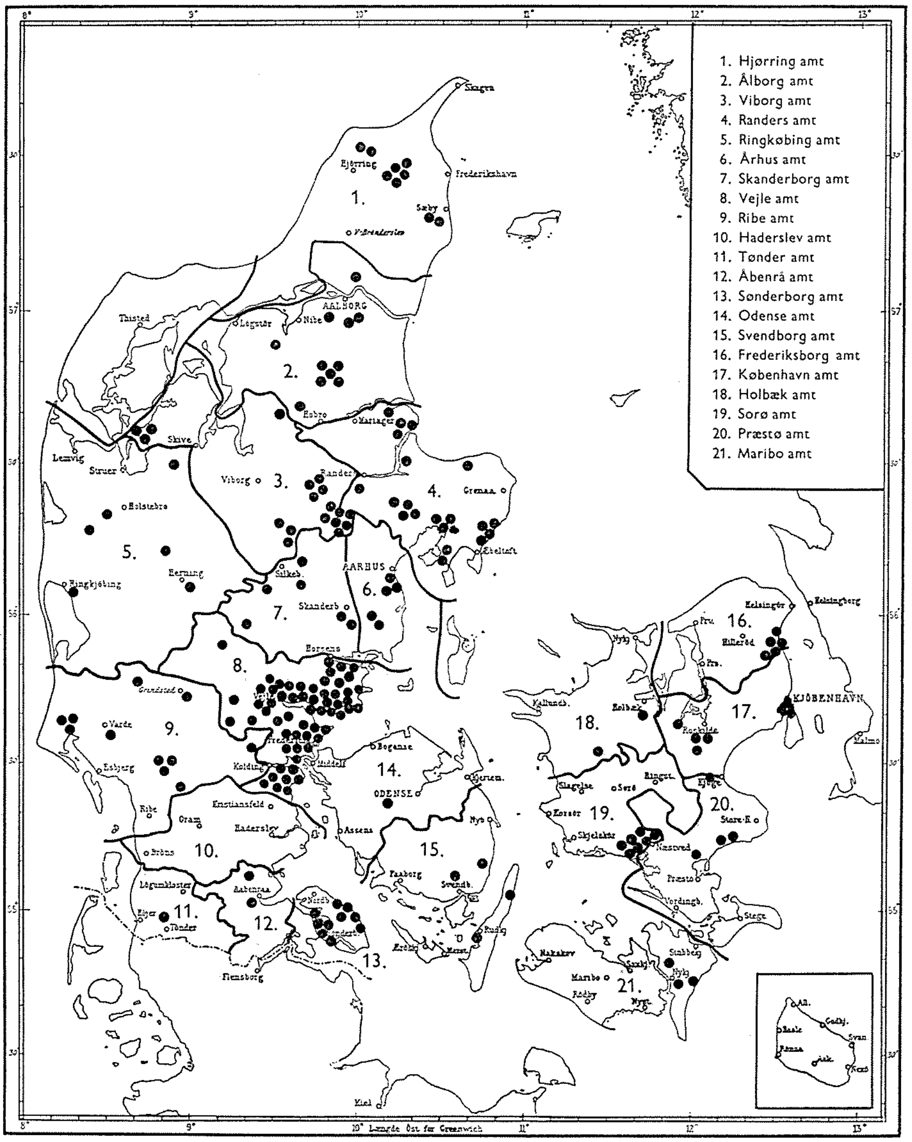

Fig. 1. Map of Denmark. The dots indicate the origin of the badgers examined. (Kort over Danmark, hvor prikkerne betegner lokaliteter for de undersøgte grævlinge).

of earth (presumably from earthworms) and comminuted and partly digested food remains were washed away.

A more serious error is introduced by the fact that to a large extent the volume depends on the degree of digestion. Also some items shrink very much after ingestion compared with others.

Because of these factors the volumes quoted must be interpreted with caution.

The total volume measured amounts to approximately 44 litres from 190 badgers, however, in the original state it would correspond to a much larger volume.

There is no universally valid method of correcting these measurements and in the lists they have been given as they were measured.

The composition and amount of food found in the individual badgers is listed in the table p. 62. The badgers were numbered according to their date of arrival at the Station. The missing numbers refer to badgers with empty stomachs.

ORIGIN OF THE BADGERS EXAMINED

On the map (fig. 1) each dot represents one badger. The list on p. 62 gives the county in which the individual badgers were killed.

It appears from the map that the material came from all parts of the country although the greater proportion came from East Jutland and particularly from Vejle County. This fact is probably caused by the great activity of a few collaborators and not by a greater local abundance of badgers.

In most parts of eastern Jutland the scenery is varied and fertile, and the badgers have lived in the numerous large and small plantations or in the few extensive forests. In this area the pheasant and hare populations are medium on a Danish scale, forming a transition between West Jutland with a low population density and the richer islands to the East (Sjælland, Fyn, and Lolland-Falster).

Unfortunately it was not possible to get a better representation of the richer island districts. Partly this may be caused by the fact that the number of badgers is being kept down by the estates.

Thus the material comes from average districts and only in a few cases from estates particularly rich in game. In this connection the chief game species considered is the pheasant, the partridge to a larger extent being abundant on the open fields of smaller holdings.

It is assumed that the material represents the average situation in Denmark.

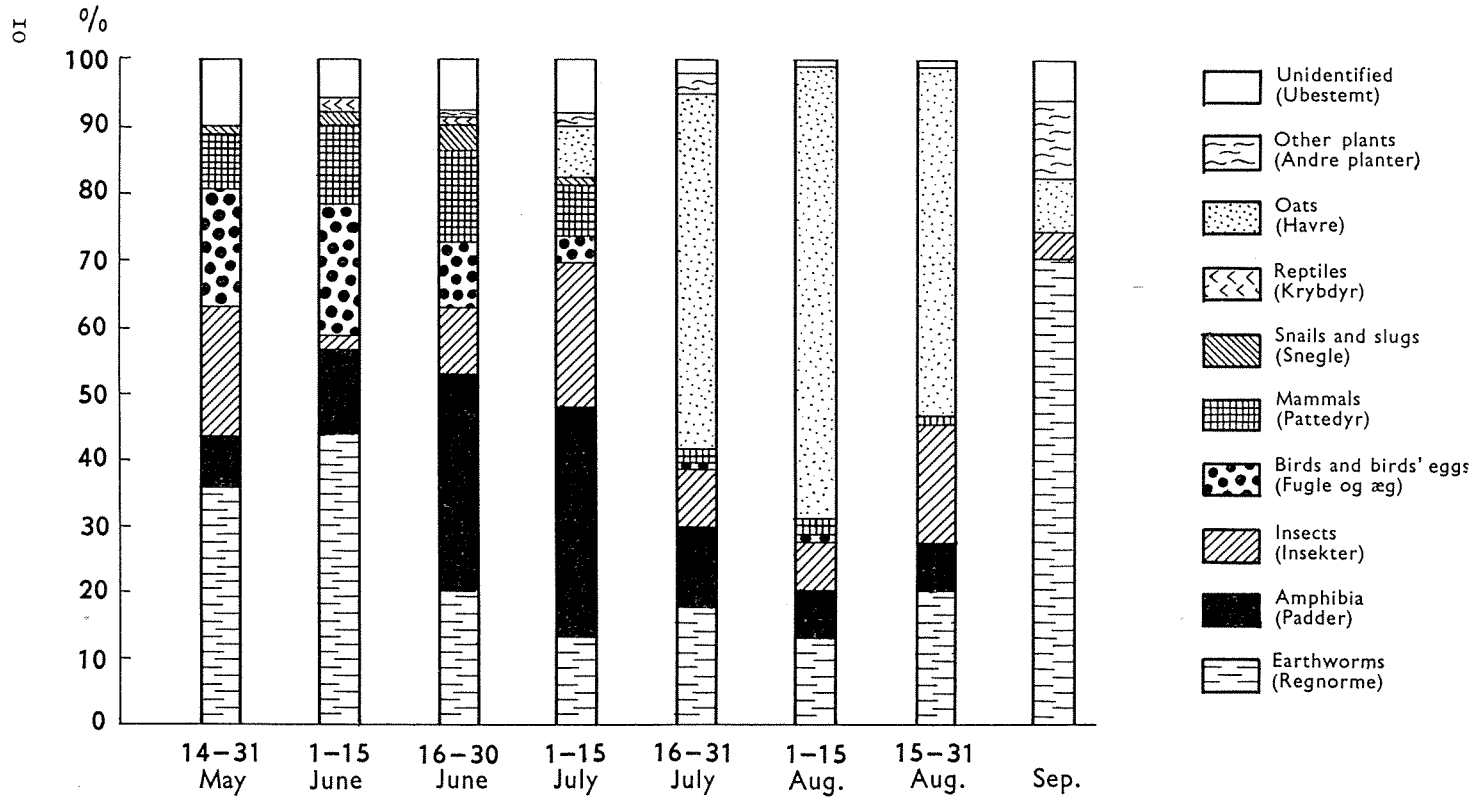

Fig. 2. Diagram showing the amounts of the individual items found in the stomachs during different periods. The respective measurements are given in Table VI p. 74.

(Diagram visende hvor stor fødemængde af hver art, der fandtes i grævlingemaverne i de forskellige tidsperioder. Tallene til diagrammet findes i tabel VI side 74).

THE FOOD CONSTITUENTS AND THEIR RELATIVE AMOUNTS

The diagram (fig. 2) shows the relative amounts of the various food items, the absolute amounts being given on p. 74. In broad outline the diagram shows the importance of the single items.

The immediate impression is that of a highly varied diet.

Earthworms play a remarkably large role constituting about ¼ of the total material on a volume basis. During the midsummer their importance is smaller, the reason for this may be that they do not appear so much on the surface during this time of the year but also that other items, e.g. frogs and toads are abundant and easily available.

The insects taken are chiefly large beetles and on a smaller scale larvae that have been unearthed by the badger.

The remains of birds, adults as well as young ones, and birds' eggs attain, quite naturally, greatest prominence in May and June, the breeding period of most birds.

The mammals, chiefly represented by mice, voles and shrews, and in particular nestlings, also show a peak during the beginning of the summer, the peak no doubt coinciding with their chief breeding period. The badger probably finds the nests on or immediately beneath the surface.

Other mammals only occur in such small numbers that they cannot be of any great importance for the badger.

Reptiles (mostly slow-worms, a single grass snake, and a few lizards) and molluscs only constitute 1–2 per cent of the total volume, and these items only occur during the early summer.

Round July 15 a pronounced change in the relative importance of the food constituents takes place, now oats—unripe or ripe—occur in large amounts constituting the greater part of the stomach contents as long as it is accessible.

It is striking that the other Danish cereals (rye, wheat, and barley) are totally absent.

In September the earthworms make up the greater part of the stomach contents, this probably reflects the fact that their surface activity is great at this time of the year and also that many of the summer food items are no more available in such large amounts. This applies to e.g. amphibia, nestlings of birds and small mammals, and perhaps also to insects. Simultaneously the category "other plants" gains importance and this appears to be still more pronounced in October from which month, unfortunately, only three badgers became available.

EARTHWORMS

143 badgers among 190 examined, or 75 per cent, contained earthworms. During the summer stomachs without earthworms were rarely found except in July.

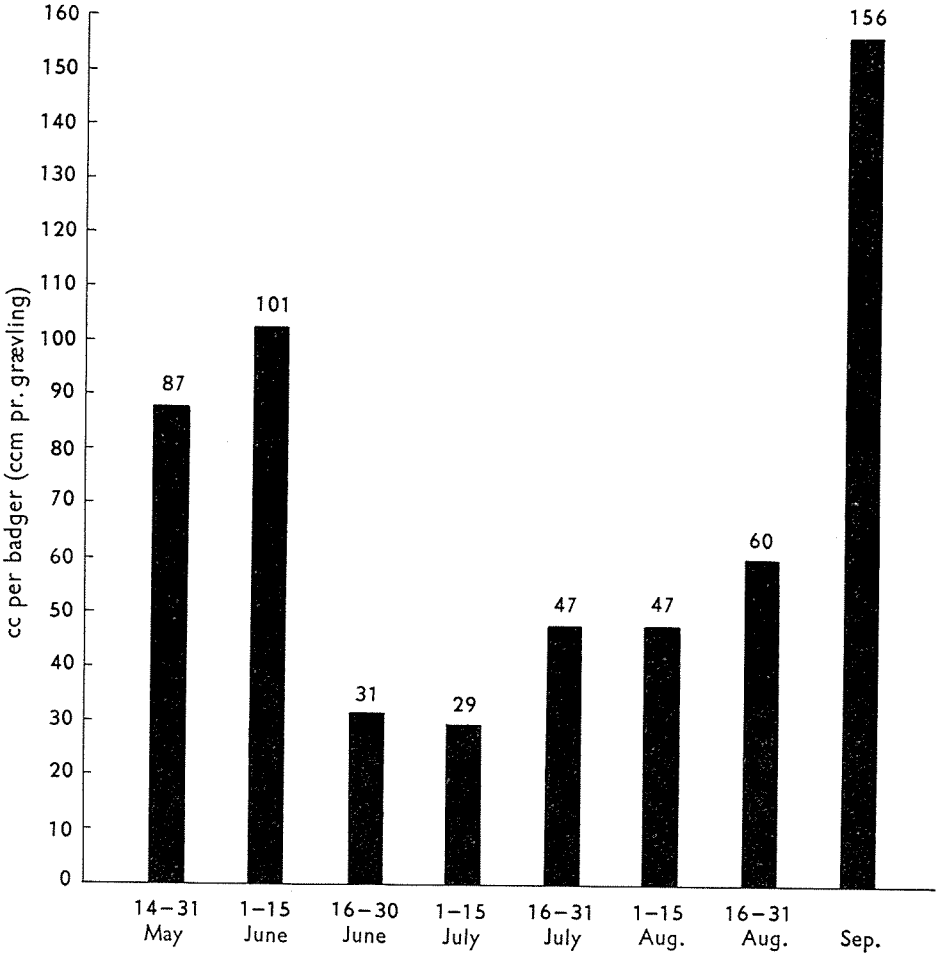

Fig. 3. Diagram showing the average amount of earthworms per badger during different periods of the year.
(Diagram visende den gennemsnitlige mængde af regnormerester pr. grævling i de enkelte perioder af året).

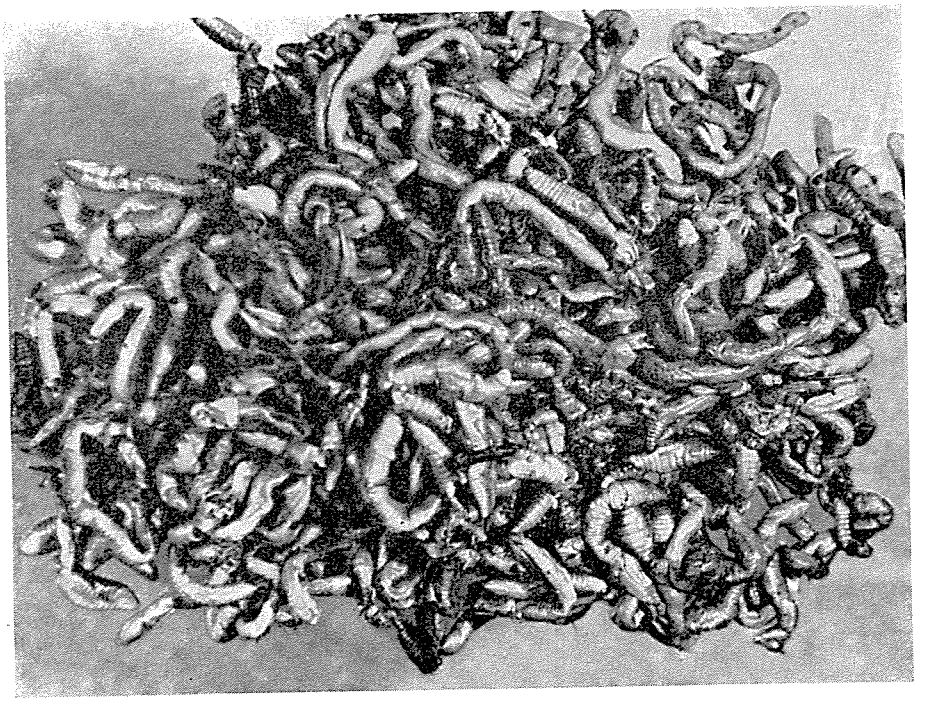

Fig. 4. Earthworms from badger no. 167.
(Regnorme fra grævling nr. 167).

The volumes of earthworms vary considerably, up to 400 cc or more having been found in a few stomachs.

It appears from the diagrams (figs. 2, 3) that the absolute and relative amounts of earthworms decrease during the warmest summer months. This is presumably caused by the reduced surface activity of earthworms. During the midsummer amphibia seem to take over the role of earthworms as a food constituent. The earthworms were not identified in great detail but by far the greater proportion of the material consists of *Lumbricus terrestris*, i.e. the largest species available.

Earthworms seem to be very important and constantly occurring (except during the winter) as a food constituent. Their total amounts to ¼ of the entire volume of food remains.

AMPHIBIA

Almost exclusively the remains of amphibia consist of toads (*Bufo bufo*) and frogs (*Rana* spp.).

The toads were identified by Mr. CARSTEN PEDERSEN.

103 badgers among 190, or 54 per cent, contained toads and/or frogs. It is seen in the list p. 74 that they constitue about 16 per cent of the total volume examined, during the midsummer even about 33 per cent. The amounts increase from May, reaching a peak during the first half of July, again decreasing until disappearance in September (cf. fig. 5) (a few toads were found in October and March–April). All size groups of amphibia were represented.

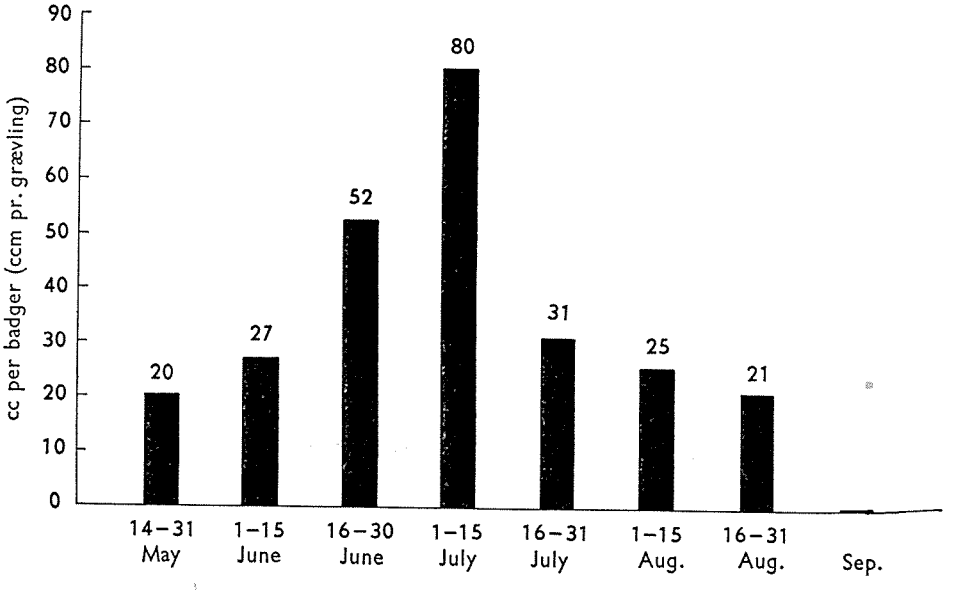

Fig. 5. Diagram showing the average amount of amphibia per badger during different periods of the year.
(Diagram visende den gennemsnitlige mængde af padderester pr. grævling i de enkelte perioder af året).

The species composition was:

189 individuals of *Bufo bufo*,
4 – – *B. calamita*,
363 – – *Rana* spp.,
1 individual – *Pelobates fuscus* and
3 individuals – *Triturus* sp.

38 stomachs contained frogs as well as toads,
36 stomachs only contained toads and
25 – – – frogs.
(in a few cases the genera could not be identified).

Apparently the badger shows no preference for any of the two Anuran genera. The supposedly toxic secretions from the skin of toads do not seem to have any repellant action on the badger.

The number of amphibia per badger was highly variable and is summarized below:

Number of toads per stomach

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
No. of badgers having this number.....	39	14	5	2	3	2	2	0	0	2	1	0	0	1	0	0	1

It is seen that most badgers contained one or two toads, a few contained more. There is no indication that individual badgers specialized in toads, e.g. badger no. 177 which contained 17 toads also had a clutch of partridge eggs, some earthworms and beetles, 10 frogs and 41 snails.

The frogs showed a similar distribution:

Number of frogs per stomach

	1	2	3	4	5	6	7	8	9	10	11	12	13	17	23	45	79	c. 500
No. of badgers having this number	22	14	4	2	3	2	1	3	4	4	0	0	1	1	1	1	1	2

As an example badger no. 195 can be mentioned which contained 79—mature and immature—frogs, 1 toad, 1 field vole, 8 shrews, 1 lark (adult) and a good many beetles. Also this favours the assumption that no individual specialization occurs.

In two cases about 500 young frogs were found. They were very small, having just passed the tadpole stage. Frogs of this size are often found in masses near the water where they spent their larval life.

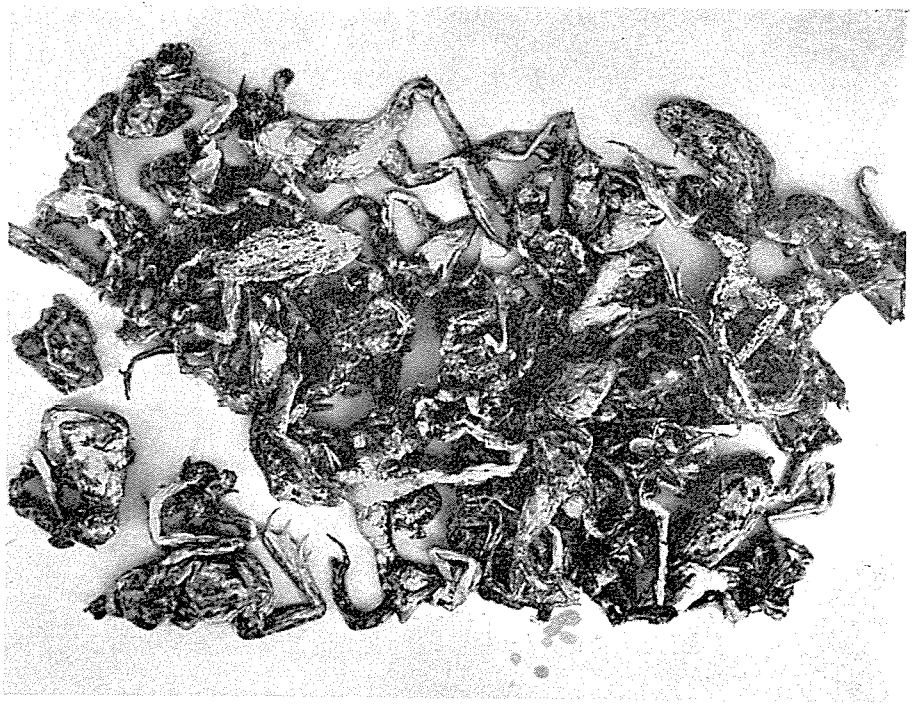

Fig. 6. Part of the frogs from badger no. 195.
(En del af frøerne fra grævling nr. 195).

The preceding data show, that as a rule the badger takes during a night a frog or a toad, in some cases more but presumably only taking what it comes across by chance.

One gets the same impression when regarding the other food constituents, e.g. beetles, molluscs, and small mammals.

One individual of *Pelobates fuscus* was found in badger no. 211 (from 12 July 1951). The same badger also contained 6 *Bufo bufo*, 1 *B. calamita*, 1 mole and a clutch of pheasant eggs together with a small amount of earthworms and beetles, again an example of a very varied diet.

INSECTS

It is immediately apparent that insects play an important role as a food for the badger. About 90 per cent of the badgers contained insects and on an average they contributed 12 per cent of the total volume of food remains.

Two categories of insects are particularly prominent constituents: the beetles. constituting 60 per cent and nests of bumble-bees and wasps, together contributing 40 per cent of the total volume of insects.

Beetles are particularly prominent during the early summer and bumble-bees and wasps during July and August. This is illustrated in the diagram, fig. 7.

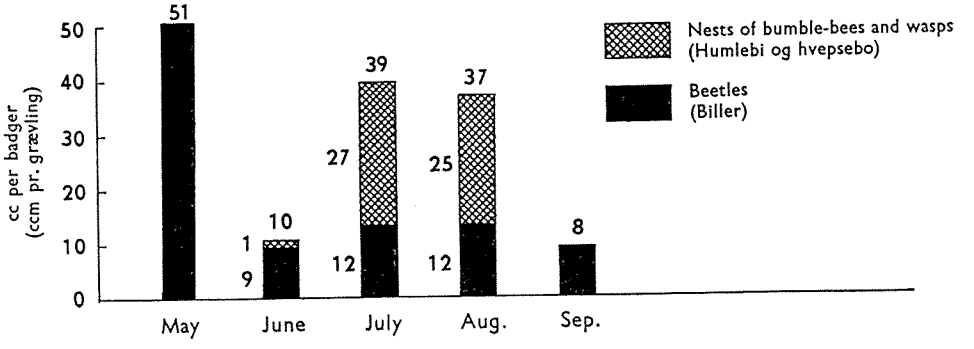

Fig. 7. Diagram showing the amount of arthropods (largely insects) per badger during different periods of the year.
(Diagram over mængden af leddyrrester (aldeles overvejende insekter) pr. grævling i forskellige tidsperioder).

No less than 121 genera were identified among 6,600 individuals. As the beetles were reduced to a heap of more or less broken elytra etc. they were counted on the basis of the number of heads present. During the preliminary washing process some of the small species may have been lost.

By far the greater proportion were imagines, larvae only being present in small numbers apart from a few cases where leatherjackets and larvae of click-beetles were abundantly present together with a few other species.

Apart from beetles a few other orders were represented, viz. Heteroptera, Hymenoptera (besides bumble-bees and wasps already mentioned), Lepidoptera (especially larvae of Noctuidae) and some dipterous larvae. Among other Arthropods a few woodlice, millepedes (*Julus, Glomeris*) and centipedes (*Lithobius*) occurred.

A summary of the list of beetle remains is given below:

CARABIDAE – ground beetles
44 genera identified, the most abundant being
Carabus L, 460 individuals,
Pterostichus Bon., 348 individuals,
Harpalus Latr., 97 individuals,
Calathus Bon., 50 individuals,
Amara Bon., 40 individuals.

DYTISCIDAE – water beetles
Laccophilus Leach, a few larvae.

SILPHIDAE – carrion beetles
Silpha L and two other less abundant genera.

STAPHYLINIDAE
Philonthus Curt. and 7 other less abundant genera.

HISTERIDAE
1 genus.

HYDROPHILIDAE
Helophorus Fabr.

CANTHARIDAE
1 genus.

COCCINELLIDAE
4 genera.

BYRRHIDAE
2 genera.

ELATERIDAE – click beetles
10 genera, *Agriotes* Esch. and *Athous* Esch. being the most abundant.

ANTHICIDAE
1 genus.

CHRYSOMELIDAE
8 genera.

CURCULIONIDAE – weevils
23 genera, *Strophosomus* Steph., *Sitona* Germ. and *Otiorrhynchus* being the most abundant.

SCARABAEIDAE
14 genera; *Geotrupes* (4801 individuals), larvae of *Cetonia* Fabr. (63 individuals), *Melolontha* (51 adults and 88 larvae).

ACRIDIIDAE – short-horned grasshoppers
Stenobothrus Fisch.

FORFICULIDAE – eartwigs
Forficula auricularia L.

HETEROPTERA – bugs
Corixa geoffroyi, 1 genus of Pentatomid bugs.

HYMENOPTERA
Tenthredinidae, especially larvae, and *Formicidae*, 5 genera.

LEPIDOPTERA
larvae – unidentified but chiefly of the family *Noctuidae*.

DIPTERA
Tipulid larvae, several hundred individuals besides other *Dipterous* larvae.

OTHER ARTHROPODS
Woodlice

JULIDAE
Julus

GLOMERIDAE
Glomeris

LITHOBIIDAE
Lithobius

Among a total of 6,600 specimens identified

Scarabaeidae contributed	5,071
and	
Carabidae –	1,159
	6,230

When the size of the members of these two families is taken into consideration it seems justified to assume that about 95 per cent of the volume of insects eaten are contributed by the two groups mentioned.

The analysis can be carried a step further as the dominants come from a few genera, *Geotrupes* Latr. contributing 73 per cent of the individuals. Next in importance come *Carabus* L. with 7 per cent, and *Pterostichus* Bon. with 5 per cent.

Thus these three genera contribute between them 85 per cent of the number of individuals and—because of their size—a still larger proportion of the volume.

When the material contains at least 121 genera representing several hundred species there can be no question of a selection exerted by the badger.

Apparently the badger takes what it happens to come across, therefore, it is natural that the larger and abundant species dominate in the food. All of them are common species living on and partly in the surface, and none of the common and large species are absent.

Ordinarily beetles occur in the stomachs in numbers ranging from 1–20 mixed with other food constituents. However, some stomachs contained very large numbers, usually belonging to a single genus, *Geotrupes*. As an example may be mentioned:

Badger no. 308 (22 May, 1952) contained 863 *Geotrupes*,
– – 210 (10 July, 1951) – 754 *Geotrupes*,
– – 310 (25 May, 1952) – 536 *Geotrupes*, and
– – 263 (25 August, 1951) – 349 *Geotrupes*.

It is astonishing that a badger has been able to find so many individuals during the few hours of a summer night. Probably it has come across some local aggregation of the species.

As an example of the variety of insects that can be found in a single stomach it can be mentioned that badger no. 187 (24 June, 1951) contained:

PENTATOMIDAE		
Eurydema sp.	1 individual	
CARABIDAE		
Carabus spp.	8	–
Notiophilus sp. ...	1	–
Bembidion spp. ...	2	–
Harpalus aeneus F.	1	–
Harpalus spp.....	6	–
Amara fulva Deg..	1	–
Amara spp.....	11	–
Pterostichus coerulescens L.....	2	–
Pterostichus spp...	4	–
Calathus spp.....	5	–
Agonum spp.....	2	–
SILPHIDAE		
Silpha spp.....	3 individuals	
HISTERIDAE		
Hister sp.....	1	–
CANTHARIDAE		
Cantharis sp.....	1	–
ELATERIDAE		
Athous spp.....	10	–
Agriotes spp.	6	–
Hypnoidus spp....	2	–
Adrastus sp.....	1	–
BYRRHIDAE		
Byrrhus spp.	2	–
COCCINELLIDAE		
Coccinella spp.....	3	–
Chilochorus spp...	2	–
SCARABAEIDAE		
Geotrupes spp.....	330 individuals	
Aphodius sp.....	1	–
Phyllopertha horticola Steph.....	2	–
CURCULIONIDAE		
Otiorrhynchus singularis L.....	1	–
Otiorrhynchus ovatus L.....	2	–
Otiorrhynchus spp..	4	–
Polydrosus spp....	3	–
Strophosomus lateralis Payk.....	2	–
Strophosomus rufipes Steph.	1	–
Cneorrhinus spp...	2	–
Sitona sp.....	1	–
Phytonomus sp....	1	–
FORMICIDAE		
Myrmica spp.	9	–
Lasius spp.	3	–
TENTHREDINIDAE		
adults.....	1	–
larvae.....	1	–
LEPIDOPTERA.....	1	–
ISOPODA	1	–
ARANEIDAE	1	–
Unidentified remains of beetles c.....	10	–
total...	452 individuals	

representing at least 35 genera.

Fig. 8. Geotrupes from badger no. 308. The matchbox is 3.5 × 5 cm.
(Skarnbasser fra grævling nr. 308).

One might almost suggest that the entomologists trained badgers to assist them.

To complete the picture it is mentioned that the remaining stomach contents consisted of 35 cc of earthworms remains, 9 individuals of *Bufo bufo*, 1 *B. calamita* and 7 *Rana* spp.

The other chief constituent among the insects: nests of bumble-bees and wasps occur, quite naturally, during the late summer (cf. the diagram, fig. 7), when the nests have attained a size warranting a profitable yield.

The stomach contents usually consist of cocoons and larvae together with some adults.

More stomachs contained bumble-bees' nests than wasps' nests, they often occur together and in many cases it was not possible to distinguish them (when digestion had proceded too far). Only a few stomachs contained wasps' nests alone (belonging to the species *Vespa rufa* and *V. vulgaris*).

Because of the frequency with which one finds wasps' nests unearthed and partly devoured by the badger it was somewhat of a surprise to find bumble-bees' nests occurring in still greater numbers.

However, there is a chance that the material may have been misinterpreted as the cocoons of bumble-bees seem to be more resistant to the digestion and therefore in a better and more voluminous condition than the remains of wasps' nests.

During the months May, July and August beetles and the two Hymenopteran genera contribute about 20 per cent of the stomach contents.

BIRDS AND EGGS

The chief purpose of the study reported on here was, as already mentioned in the introduction, to investigate the extent to which the badger preys upon birds' eggs and nestlings with special view to the pheasant and partridge.

A glance at the diagram fig. 2 and fig. 9 immediately shows that remains of birds contribute a noticeable proportion of the stomach contents during the early part of the summer, during the last half of May and the first half of June upwards of 20 per cent of the total volume.

However, the nature of these birds remains is very varied and the items have been divided into three groups:

(1) Remains of organs and plumage of adult birds and chickens of domestic fowl, see Table I.
(2) Remains of bird nestlings, see Table II.
(3) Birds' eggs, see Table III.

This material of feathers, pieces of skin, bones and other organs, chewed up nestlings and crushed egg shells was identified as shown in the tables below.

22 stomachs contained remains of adult birds and chickens of the domestic fowl. Among them 7 cases were from January, February and March, they have not been included in the diagrams.

Table I is rich in species and some birds are present which the badger can hardly be suspected of having caught alive. The only reasonable explanation is that the birds have been found dead. The remains of domestic fowl often bear witness that refuse heaps have been the hunting ground, e.g. the remains of domestic fowl in badger no. 347 contained several fly maggots.

However, the bantam hen with chickens have probably been caught live.

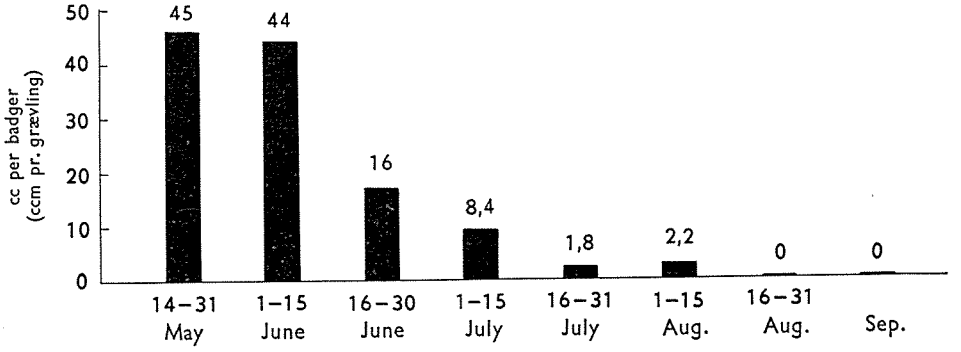

Fig. 9. Diagram showing the amount of bird remains per badger during different periods of the year. (Diagram over mængden af forskellige fuglerester pr. grævling i forskellige tidsperioder).

Table I.

REMAINS

(Rester

Badger (grævling) no.	4	9	10	60	103	127	128	133	134
Sex (køn)	?	♂	♂	♀	♂	♂	♂	♀	♀
Date (dato)	10/7 1950	30/7 1950	8/8 1950	19/1 1951	19/2 1951	13/3 1951	11/3 1951	17/3 1951	20/3 1951
Domestic fowl (tam øne) *Gallus domesticus* L.		× juv. (kylling)	× juv. (kylling)						
Pheasant (fasan) *Phasianus colchicus* L.								× ♀	
Gull (måge) *Larus spp.*				×					
Lark (lærke) *Alauda (arvensis L.?)*									
Hooded Crow (krage) *Corvus corone cornix L.*				×					
Blackbird (solsort) *Turdus m. merula L.*						× ♂			
Redwing (vindrossel) *Turdus m. musicus L.*								×	
Pipit (piber) *Anthus (pratensis?)*									
Starling (stær) *Sturnus v. vulgaris L.*							×		
House Sparrow (gråspurv) *Passer d. domesticus* (L.)	×				×				
Chaffinch (bogfinke) *Fringilla c. coelebs L.*							× ♀		
Yellowhammer (gulspurv) *Emberiza c. citrinella L.*									
Unidentified (ubestemmelig)									×

Adult pheasants occur in two cases, and it is often maintained that the badger can surprise a sitting pheasant or partridge. Nothing in the material available here can support this hypothesis. The one hen pheasant present comes from March, i.e. long time before the breeding period.

OF BIRDS

af fugle)

138 ♀ 23/3 1951	154 ♀ 16/5 1951	159 ♀ 25/5 1951	162 ♀ 27/5 1951	195 ♀ 29/6 1951	214 ? 13/7 1951	225 ♂ 22/7 1951	298 ♀ 18/5 1952	302 ♀ 22/5 1952	324 ♀ 10/6 1952	330 ♀ 15/6 1952	344 ♂ 18/6 1952	347 ♀ 2/7 1952
						× ♂juv. (♂kylling)	× 1 bantam w. chicks (dværghøne m. kyllinger)				×	× ad. & juv.
									× ♂			
				×								
			×									
× ♂								×				
					×							
	×	× ♀										
										× Reed Bunting ? (rørspurv)		

In July a cock pheasant was found but as the male does not brood it seems more likely that it was found dead.

Also Table 2 is fairly varied, and it is seen to contain species breeding on or near the ground, especially the yellow hammer (*Emberiza citrinella*) seems

Table II.

REMAINS OF

(Rester af

Badger (grævling) no.	5	185	186	191	193	197	307	308
Sex (køn)	?	♀	♀	♀	♀	♂	♀	♂
Date (dato)	10/7 1950	24/6 1951	25/6 1951	28/6 1951	1/7 1951	30/6 1951	23/5 1952	22/5 1952
Mallard (gråand) *Anas p. platyrhynchos L.*								
Pheasant (fasan) *Phasianus colchicus L.*								
Partridge (agerhøne) *Perdix p. perdix (L.)*								
Skylark (sanglærke) *Alauda a. arvensis (L.)*	× 2–3							
Tits (mejser) *Paridae*							× 6	
Song Trush (sangdrossel) *Turdus e. ericetorum T.*						× 1		
Blackbird (solsort) *Turdus m. merula L.*								
Whinchat (bynkefugl) *Saxicola rubetra (L.)*		× 4						
Robin (rødhals) *Erithacus r. rubecula (L.)*								× 5
Willow Warbler (løvsanger) ? *Phylloscopus t. trochilus (L.)*					× 1			
Linnet (tornirisk) *Carduelis c. cannabina (L.)*			× 4					
Chaffinch (bogfinke) *Fringilla c. coelebs L.*								
Yellowhammer (gulspurv) *Emberiza c. citrinella L.*				× 2		× 2		

to be exposed to a considerable risk, however, its abundance may help to explain its frequent occurrence in the stomachs.

In some cases newly fledged individuals were found and in others quite young nestlings.

Although some of them may have been found dead the frequent occurrence of several individuals of the same species and of equal size tends to show that

BIRDS' NESTLINGS

fuglæunger)

311 ♂ 23/5 1952	312 ♂ 25/5 1952	317 ♂ 5/6 1952	323 ♂ 10/6 1952	327 ♂ 12/6 1952	331 ♀ 15/6 1952	337 ♀ 23/6 1952	350 ♂ 5/7 1952	351 ♂ 8/7 1952	364 ? 14/7 1952	367 ♀ 13/7 1952	382 ♀ 3/8 1952
.....	.....	× 14	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	× 2	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	× 2	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	× 12	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	× 4	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	× 2–3	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	× 1	.....	.....
× 4	× 1	.....	.....	× 1	.....	× 4	.....	× 1	.....	.....	× 1

whole clutches have been devoured and there can hardly be any doubt that the badger has emptied nests with youngs.

From the game managers' point of view the case of 14 mallard ducklings deserves some comments.

This case originates from the duck nursery at Kalø. The 1 ha area is fenced and contains some 50 brooding mallards.

Table III.

REMAINS (

(Rester

Badger (grævling) no.	142	152	156	159	162	167	174	177	186	191	193	201	211	22
Sex (køn)	♀	♂	♀	♀	♀	♀	♀	♀	♀	♀	♀	♀	♂	♂
Date (dato)	11/4 1951	14/5 1951	21/5 1951	25/5 1951	27/5 1951	30/5 1951	9/6 1951	12/6 1951	25/6 1951	28/6 1951	1/7 1951	3/7 1951	12/7 1951	15/ 195
Domestic duck (tamand)														
Anas platyrhyncha L. dom.														
Domestic fowl (tamhøne)	×											×		
Gallus domesticus L.	1											1?		
Pheasant (fasan)					×	×	×			×			×	
Phasianus colchicus L.					ca. 10	1	ca. 8			1			ca. 12	
Partridge (agerhøne)								×	×		×			
Perdix p. perdix (L.)								12–13	1–2		ca. 12			
Skylark (sanglærke)														
Alauda a. arvensis (L.)														
Garden Warbler (havesanger)														
Sylvia b. borin (B.)														
Linnet (tornirisk)			×											
Carduelis c. cannabina (L.)														
Yellowhammer (gulspurv)		×		×										×
Emberiza c. citrinella (L.)														

The badger has managed to get through the fence but was killed early in the morning while on its way out. Ten of the ducklings found in the stomach were nearly hatched (with egg tooth), and fragments off egg shells were present —apparently a newly hatched or hatching clutch has been surprised. The remaining 4 were somewhat older.

This is a special case and the badger has had an exceptionally good opportunity to find a mallard's nest. On the other hand it does show that the badger will take ducklings when the opportunity offers itself.

IRDS' EGGS

ıgleæg)

226 ♀ 22/7 1951	255 ♀ 14/8 1951	294 ♂ 5/5 1952	303 ♂ 21/5 1952	304 ♀ 22/5 1952	307 ♀ 23/5 1952	308 ♂ 22/5 1952	310 ♀ 22/5 1952	311 ♂ 23/5 1952	315 ♀ 1/6 1952	323 ♂ 10/6 1952	345 ♂ 29/6 1952	347 ♀ 2/7 1952	348 ♀ 4/7 1952	350 ♂ 5/7 1952	353 ♂ 8/7 1952	370 ♂ 20/7 1952	383 ♀ 1/8 1952
													× 1?				
		× 1										× 1					
	× 1–2									× 5					× 1		× 1
× 1			× 1–2											× 4–5			
																×	
											×						
				×		×		×?									
					×		×		×								

The two partridge chicks were also newly hatched and they were found together with about 5 eggs—presumably a clutch just hatching.

Table III demonstrates that in several cases the badger has taken eggs of passerines, especially Yellow Hammer. The number of cases where clutches of pheasant or partridge have been found amounts to 7 (comprising 5–12 eggs), in the remaining cases the badgers have probably found individual eggs that have been dropped in odd places by the hens, a phenomenon that often takes place.

In four cases remains of a single egg of domestic fowl were found.

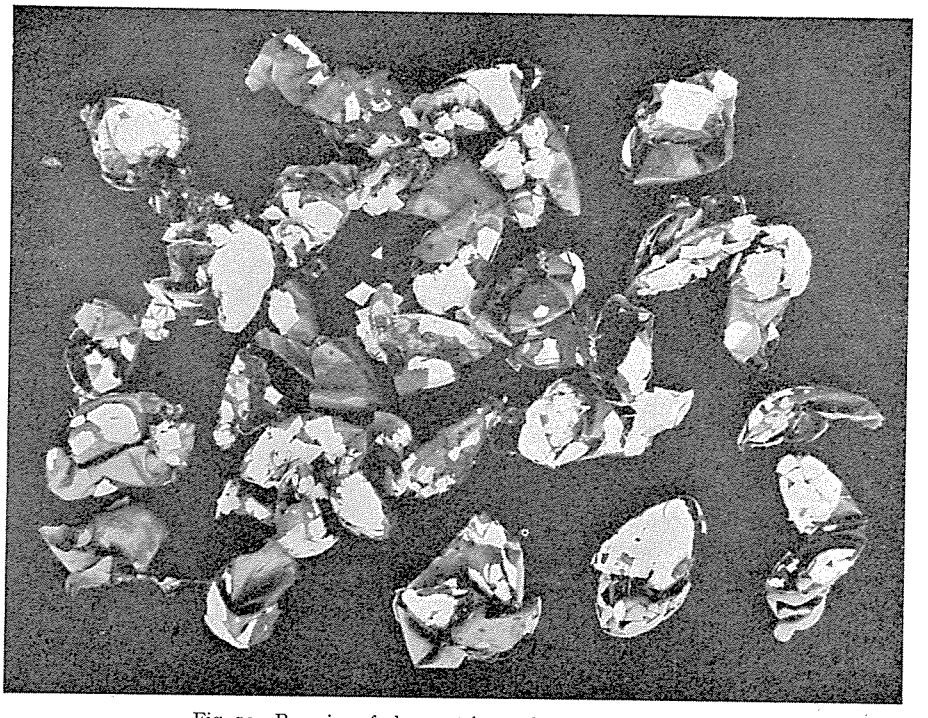

Fig. 10. Remains of pheasants' eggs from badger no. 211.
(Rester af fasanæg fra grævling nr. 211).

MAMMALS

It has already been mentioned that the remains of mammals almost exclusively consisted of mice, voles and shrews. 63 or a little more than 30 per cent of the badgers examined contained remains of small mammals. Young individuals were abundant and particularly nestlings, only few adults being fouud.

It appears from the diagram, fig. 11, that the largest number of small mammals are eaten during the first part of the summer.

Several genera are represented. The contents can be summarized as follows:

C. 185 voles (Microtinæ), 90 per cent being field voles (*Microtus*), the rest chiefly bank vole (*Clethrionomys*) and a few water voles (*Arvicola*).

C. 40 mice (Murinæ), almost exclusively woodmice (*Apodemus*), only a single *Micromys minutus* occurring.

C. 200 shrews (Soricidae) among which was one pigmy shrew (*Sorex minutus*), one water shrew (*Neomys fodiens*), the rest being *Sorex araneus*, the common shrew.

The average number of small mammals is c. 7 per badger containing mammals at all and about two per badger among the total material.

On an average, therefore, the badger is seen to take about one shrew and one small rodent per night during the summer months.

It is seen that shrews occur as often as small rodents in the stomach contents. Presumably shrews are very abundant—about as abundant as mice and voles together. There seems to be no reason for assuming the badger to have any preference for shrews, or that shrews are easier to find.

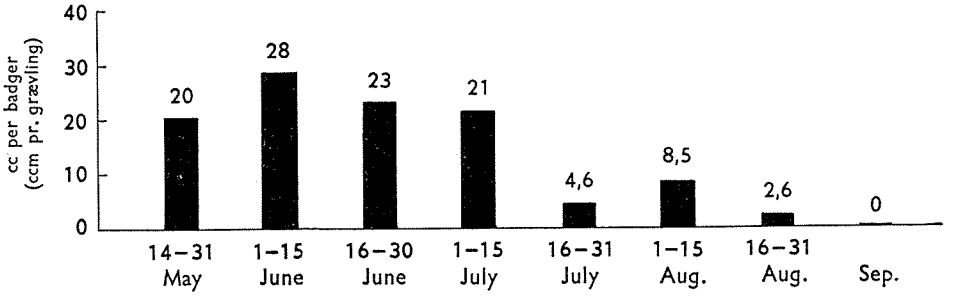

Fig. 11. Diagram showing the amount of mammal remains per badger during different periods of the year.
(Diagram over mængden af pattedyrrester pr. grævling i forskellige tidsperioder).

Table IV.

REMAINS OF
(Pattedyr-

Badger (Grævling) No.	Sex (Køn)	Date (Dato)	Mice (Muridae) and shrews (Soricidae) (Mus og spidsmus) cc	Nos. (Antal)	Voles (Microtinae) (Studsmus) nos. (antal)					
					Microtus spp				other (andre) Microtinæ	Unidentified (ubestemte) Microtinæ
					total			Species (Art)		
					ad	juv.	pull.			
4	?	10/7 1950	43	23	1	....	×[1]	.....	1 Clethrionomys glareolus	.....
6	♂	24/7 –	2	1	....	....	....	.....	1 Clethrionomys glareolus pull.	.....
10	♂	8/8 –	10	4	....	....	....	.....	.....	.....
12	♀	16/8 –	2	2	....	....	....	.....	.....	2 pull.
60	♀	19/1 1951	1	1	1	....	....	arvalis	.....	.....
120	♂	8/3 –	3	1	....	....	....	.....	.....	.....
154	♀	16/5 –	1	1	....	....	....	.....	.....	.....
156	♀	21/5 –	20	6	....	3	3	agrestis	.....	.....
162	♀	27/5 –	100	16	....	4	7	agrestis	.....	.....
167	♀	30/5 –	20	6	....	....	6	.....	.....	.....
168	♂	31/5 –	2	2	....	....	....	.....	.....	.....
174	♀	9/6 –	70	12	....	....	....	.....	1 Clethrionomys glareolus ad.	
180	♀	18/6 –	35	8	....	....	....	.....	.....	.....
181	♀	17/6 –	118	11	1	8	....	agrestis	.....	.....
193	♀	1/7 –	28	3	....	3	....	agrestis	.....	.....
195	♀	29/6 –	50	9	1	....	....	.....	.....	.....
201	♀	3/7 –	90	18	....	....	....	.....	.....	.....
205	♀	8/7 –	1	1	....	....	....	.....	1 Clethrionomys glareolus	.....
210	♀	10/7 –	10	2	....	....	....	.....	.....	.....
217	♂	15/7 –	22	6	....	....	....	.....	.....	.....
218	♀	15/7 –	15	1	....	....	....	.....	.....	.....
220	♂	15/7 –	22	10	....	....	5	.....	.....	5 pull.
223	♂	22/7 –	19	5	....	4	....	.....	.....	.....
224	♂	22/7 –	20	10	....	....	....	.....	.....	.....
225	♂	22/7 –	26	12	....	....	12	.....	.....	.....
238	♂	2/8 –	52	4	....	....	....	.....	4 Arvicola terrestris juv.	.....
239	♀	2/8 –	5	3	....	....	....	.....	.....	.....
260	♂	23/8 –	15	3	....	....	3	.....	.....	.....
262	♀	22/8 –	5	1	....	....	....	.....	.....	.....

[1]) Total 21 pull. — some Microtus, some Clethrionomys glareolus.
(Ialt 21 pull. — nogle Microtus, nogle Clethrionomys glareolus.)

MAMMALS
rester)

Mice (Murinæ) (Egentlige mus) nos. (antal)						Shrews (Soricidae) (Spidsmus) nos. (antal)				
Apodemus spp				other (andre) Murinæ	Unidentified (ubestemte) Murinæ	Sorex araneus			Sorex minutus	Neomys fodiens
total			Species (Art)							
ad	juv.	pull.				ad	juv.	pull.		
								4		
						1				
				1 Micromys min. juv.						
							5			
								2		
								11		
								8		
						2				
							8			
	4					5	9			
										1
								6		
						1				
							1			
		10								
							3			
					1					

to be continued

Badger (Grævling)	Sex (Køn)	Date (Dato)	Mice(Muridae) and shrews (Soricidae) (Mus og spidsmus)	Nos (Antal)	Voles (Microtinae) (Studsmus) nos. (antal)					
					Microtus spp				other (andre) Microtinæ	Uniden-tified (ubestemte) Microtinæ
					total			Species (Art)		
					ad	juv.	pull.			
No.			cc							
263	♂	25/8 1951	14	6	1	....	5	.....	.....	.....
299	♀	18/5 1952	45	6	....	5	....	.....	.....	.....
301	♂	18/5 –	38	1	....	....	....	.....	.....	.....
304	♀	22/5 –	45	18	1	....	....	.....	.....	.....
307	♀	23/5 –	12	6	....	....	....	.....	.....	.....
308	♂	22/5 –	8	4	....	....	4	.....	.....	.....
310	♀	25/5 –	30	16	....	....	....	.....	.....	.....
311	♂	23/5 –	48	15	....	....	....	.....	.....	.....
312	♂	25/5 –	110	20	....	6	8	4 agrestris juv.	.....	.....
315	♀	1/6 –	43	8	....	....	....	.....	.....	.....
318	♀	7/6 –	48	7	....	....	....	.....	.....	.....
322	♀	6/6 –	9	3	....	....	2	.....	.....	.....
323	♂	10/6 –	142	24	2	....	13	7 agrestris pull.	.....	.....
327	♂	12/6 –	7	1	....	....	....	.....	.....	.....
329	♀	15/6 –	2	1	....	....	1	.....	.....	.....
330	♀	15/6 –	1	1	....	....	....	.....	.....	.....
331	♀	15/6 –	5	3	....	....	....	.....	.....	.....
334	♂	18/6 –	30	5	....	....	....	.....	.....	.....
337	♀	23/6 –	16	6	....	....	....	.....	.....	.....
341	♂	27/6 –	5	4	....	....	4	.....	.....	.....
350	♂	5/7 –	26	18	....	....	17	.....	.....	.....
352	♀	6/7 –	77	ca. 27	....	....	×[2])	.....	.....	.....
353	♂	8/7 –	39	9	....	....	4	.....	.....	.....
356	♀	9/7 –	8	4	....	....	....	.....	.....	.....
357	♀	10/7 –	33	7	....	....	....	.....	.....	.....
361	♀	11/7 –	50	7	....	....	....	.....	.....	.....
364	?	14/7 –	10	4	....	....	....	.....	.....	.....
365	?	13/7 –	1	1	....	....	....	.....	.....	.....
367	♀	13/7 –	3	1	....	....	....	.....	.....	.....
372	♀	20/7 –	2	1	....	....	....	.....	.....	.....
373	♀	23/7 –	8	4	....	....	4	.....	.....	.....
374	♂	26/7 –	2	1	....	....	....	.....	.....	1 pull.
381	♂	1/8 –	27	5	....	....	....	.....	.....	.....
383	♀	1/8 –	9	1	....	....	....	.....	.....	.....
Total	63 badgers		1760	427	8	33	98		8	8

[2]) Remains of c. 18 Microtus + Apodemus.
(Rester af ca. 18 Microtus + Apodemus).

Mice (Murinæ) (Egentlige mus) nos. (antal)						Shrews (Soricidae) (Spidsmus) nos. (antal)				
Apodemus spp				other (ander) Murinæ	Unidentified (ubestemte) Murinæ	Sorex araneus			Sorex minutus	Neomys fodiens
total			Species (Art)			ad	juv.	pull.		
ad	juv.	pull.								
						1				
1			flavicollis							
								17		
								6		
								16		
								15		
							3	3		
							8			
								7		
						1				
							3	5	1 ad.	
						1				
								1		
								3		
								5		
								6		
							1			
	5						4			
							5			
								4		
						4	3			
	5					2				
							4			
							1			
							1			
					1					
		5								
					1 juv.					
1	14	15		1	3	19	59	119	1	1

Fig. 12. Voles and shrews from badger no. 162.
(Mus og spidsmus fra grævling nr. 162).
4 Microtus agrestis juvv. 7 Microtus agrestis pull. 5 Sorex araneus juvv.

It appears from the list that in most cases small mammals occur singly or in small numbers, 20 or more rarely being found in one stomach.

Other mammals were found in the following cases:

Hedgehog (*Erinaceus europæus*) in two cases,
Mole (*Talpa europæa*) in 7 cases,
Hare (*Lepus europæus*) in 3 cases (juveniles).

Considering these species together only one stomach contained more than one individual, viz. badger no. 323 containing no less than 7 moles—2 adults and 5 juveniles, probably a nest has been plundered.

There are no means of deciding whether the individuals of these mammals have been taken live or found dead.

The badger is known to take hedgehogs, however, it is not believed to be a common phenomenon in Denmark. Notini (l.c.) reports a few cases from Sweden. In England (cf. Neal, 1948, p. 53, Middleton 1935) it seems to do so more often.

One is tempted to think that the hedgehog is more abundant in England. The scenery of at least South England makes this assumption probable.

Concerning juvenile hares they are apparently not a normal constituent of the badger's food considering their abundance and the occurrence of only three cases among the material examined here.

Thus there is reason to think that the badger does take young hares when given the opportunity. On the other hand this seems to be rare and some of the hares may even have been found dead.

In this connection it is worth to point out that in England juvenile rabbits seem to be an important food item (Neal, 1948, Middleton 1935). This tends to support the impression that the badger, being an omnivorous animal, utilizes all the opportunities that offer themselves.

The rabbit is abundant in England, and the young ones cannot escape when the badger digs its way to the nests. The young hares, living on the ground, are given better opportunities to escape the badger, at least when they are a few days old.

In Denmark the rabbit only occurs in the southern part of the country, and, unfortunately, only few badgers came from this part of the country, thus there is no possibility to discuss the interrelationship between rabbits and badgers here.

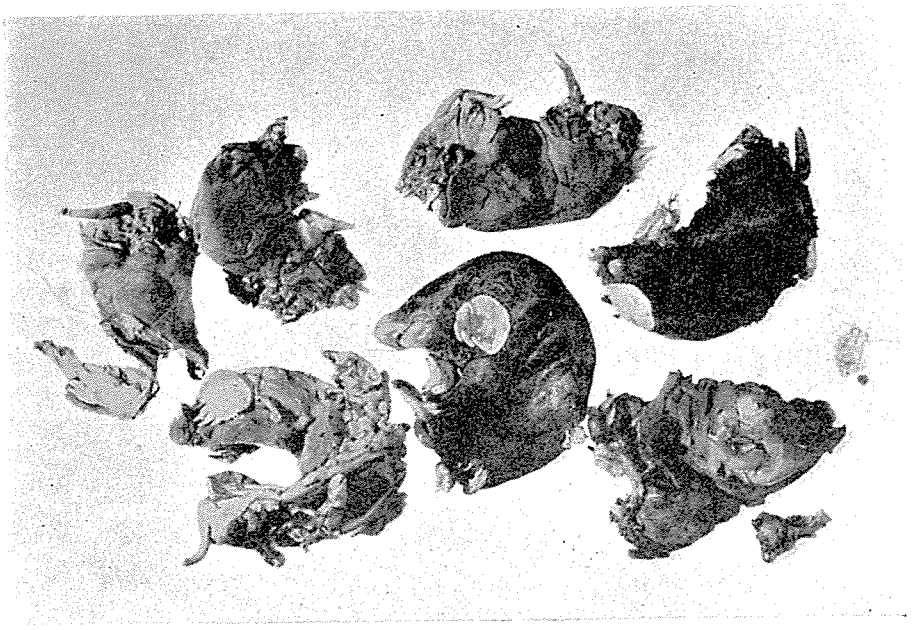

Fig. 13. Moles (Talpa europæus) from badger no. 323.
(Muldvarpe fra grævling nr. 323). 2 ad. 5 juvv.

GASTROPODS

It is well-known that the badger takes snails and slugs. The fact was confirmed through this investigation, however, the importance of this food item is only small. Only in June they contribute a few per cent of the volume of the stomach contents, even if the presence of small slugs may be difficult to detect if digestion has proceded for a short time.

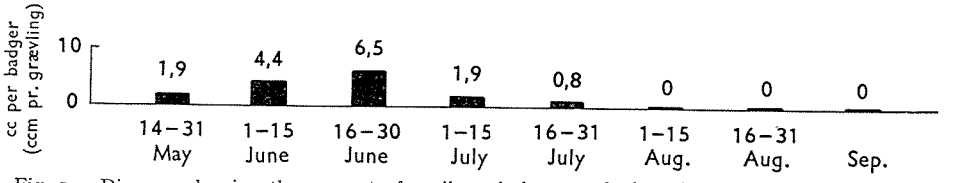

Fig. 14. Diagram showing the amount of snails and slugs per badger during different periods of the year.
(Diagram over mængden af sneglerester pr. grævling i de forskellige tidsperioder).

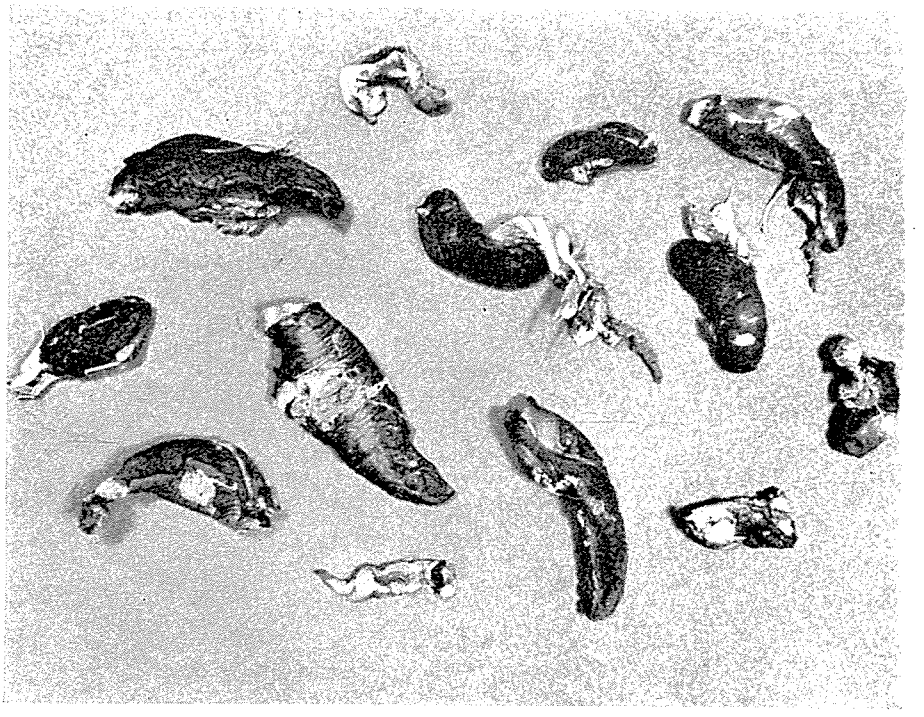

Fig. 15. 12 slugs (Arion ater) among which 5-6 are young individuals from badger no. 180.
(12 skovsnegle, hvoraf 5-6 er unge individer fra grævling nr. 180).

About 14 per cent of the badgers contained remains of gastropods. About 300 individuals were found in 27 stomachs. They were all identified, and the species composition is summarized below.

Limax maximus L.	2	*Hygromia incarnata* Müll.	2
Agriolimax sp. (*agrestis?*)	40	*Trichia hispida* (L.)	1
Hyalinia sp.	1	*Cepaea hortensis* Müll.	28
Arion ater L.	95	*Cepaea nemoralis*	56
A. circumscriptus Johnst.	7	*Cepaea* sp.	2
A. subfuscus Drap.	6	*Discus rotundatus* Müll.	2
A. sp.	55	total...	297

It is seen that more than half the number (163) were Arionidae and 1/3 (89) Helicidae.

Taking into consideration the size of the Arion species and the Helicidae upwards of 9/10 of the weight of food derived from molluscs have been Arionidae and Helicidae.

The omnivorous habit of the badger is confirmed but the number of snails and slugs eaten cannot mean much neither to the badger nor to the snail and slug population.

Ordinarily a few molluscs were found per stomach, only a few badgers contained a large number of individuals.

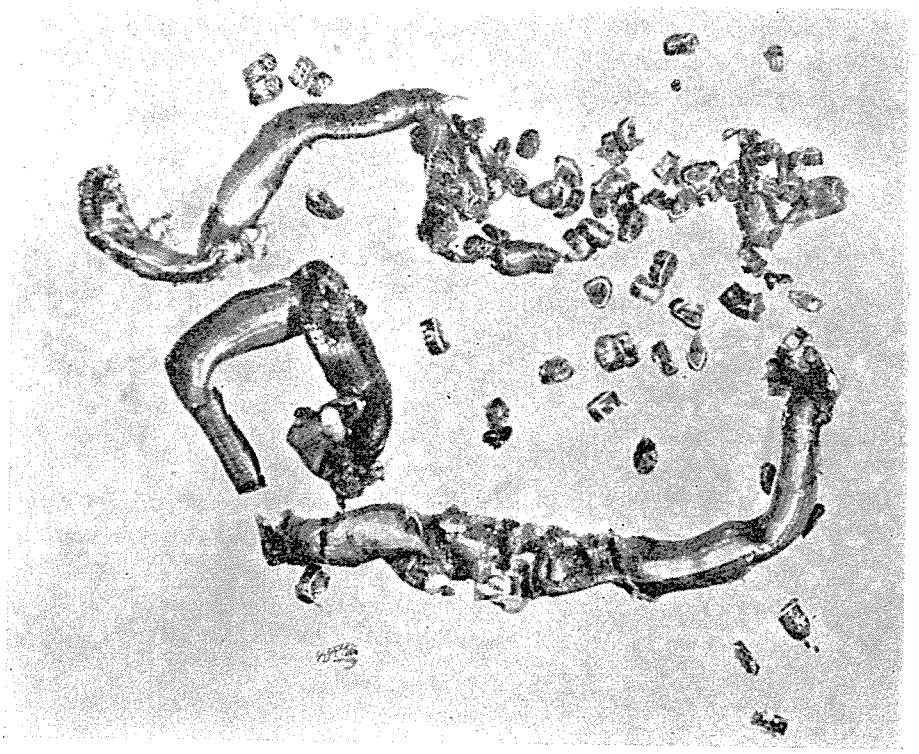

Fig. 16. Slowworms (Anguis fragilis) from badger no. 180.
(Stålorme fra grævling nr. 180).

REPTILES

Reptiles are of rare occurrence in the stomachs. Remains were only found in 5 cases, a remarkably small number considering the abundance of some of the species concerned.

The remains consisted of

Lacerta sp.	2	individuals,
Anguis fragilis	6	–
Natrix natrix	1	–

Lizards and grass snakes may be too quick for the badger but this can hardly apply to the slow-worm. A more probable explanation is that all of them are about during the day time but conceal themselves below the surface during the night, when the badger is out.

Only the June material contained so many remains of reptiles that they show in the diagram fig. 2.

Apart from the species mentioned the viper (*Vipera berus*) occurs in Denmark, however, it was not found in the material.

OATS (*Avena sativa*)

Not many kinds of plant material have been found in the stomachs. However, the one item regularly found seems to be very important during the late summer.

Oats contributed 26 per cent of the total volume examined, i.e. more than the earthworms.

While other important items e.g. earthworms, amphibia and insects occur throughout the summer, the importance of oats is restricted to the period from seed formation to harvesting, when the crop is removed from the fields, i.e. largely July–August.

During this period more than half of the stomach contents consist of oats.

This causes a striking change in the diagram, fig. 2, from mid-July all other constituents being overshadowed by oats.

Among 57 badgers available from the period July 16 to August 31 47, or a little more than 80 per cent, contained oats.

The absolute amounts present can be quite considerable. It is seen from the diagram, fig. 17, that the average volume per stomach amounts to about ¼ l during the first half of August. In several cases upwards of ½ l was found.

In this case a selection of food seems to be operating, in contrast with what has been found with regard to the other food constituents discussed hitherto. Fields with oats are distributed in such a way that it is difficult to imagine them to occur along a badgers more or less arbitrary route in so many cases as the present material would presuppose.

Farmers with badgers living near their fields often complain of the damage done by the badger, especially the trampling of cornfields is a frequent source of complaint.

Neal (l.c., p. 63) mentions the same phenomenon but not in connection with the search for food. He ascribes it to the playing about of the badger on its playing grounds in the corn. If this is so one would expect such playing grounds to occur in fields with other cereals also.

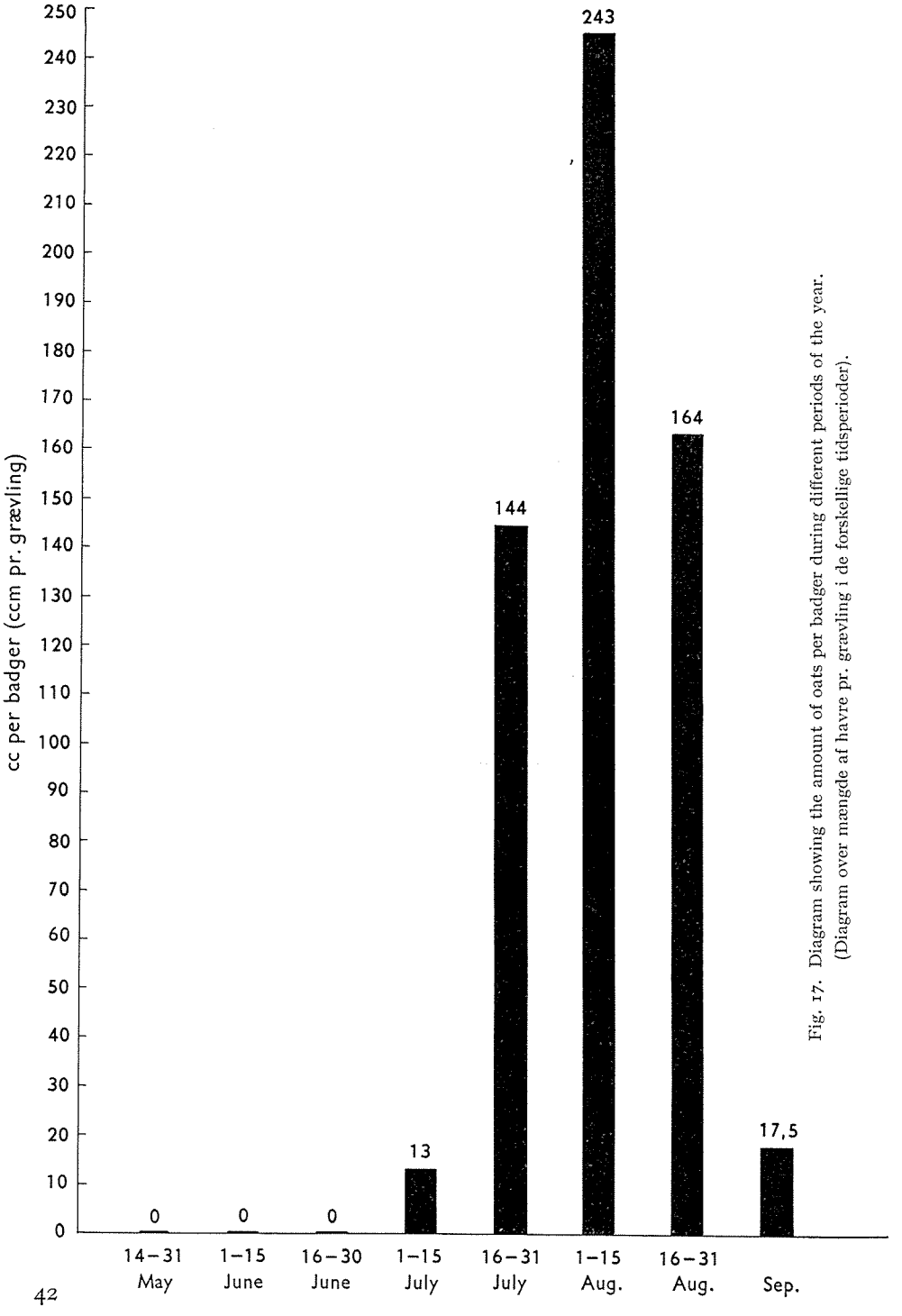

Fig. 17. Diagram showing the amount of oats per badger during different periods of the year.
(Diagram over mængde af havre pr. grævling i de forskellige tidsperioder).

Fig. 18. Oats (Avena sativa) from badger no. 219.
(Havre fra grævling nr. 219).

However, there can be no doubt that badgers which visit oats fields for one or the other purpose will also eat oats. The actual feeding act has never been observed by the present author. The oats occur as detached seeds, never comprising whole ears. This contrasts with what has been observed in hares where the entire ear or parts of it are taken. Some of the trampling is probably done when reaching for the ears.

OTHER PLANTS

Apart from oats plants do not contribute much to the stomach contents. Only in July and during the autumn are they noticeable.

The September column in the diagram, fig. 19, is based on a small material, only the fact that also the (few) badgers from October contained large amounts of similar items justified its inclusion. The items in question are often easily available in the autumn.

The plant remains from July largely consist of strawberries (*Fragaria*) which were present in various amounts in 9 stomachs. Blackberries (*Rubus* sp.) only occurred in one case (badger no. 374). Presumably the strawberries present are wild ones from woodland, although it is known that the badger can visit gardens to feed on cultivated strawberries.

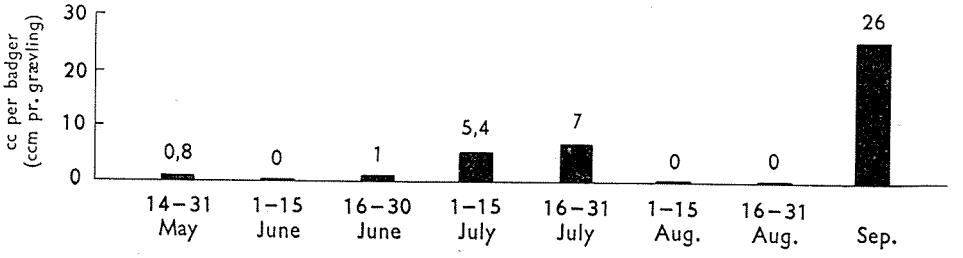

Fig. 19. Diagram showing the amount of plant remains (except oats) per badger during the different periods of the year.
(Diagram over mængden af planterester (fraset havre) pr. grævling i de forskellige tidsperioder.)

In September and October the chief constituent of this category is *Prunus* (especially *P. cerasifera*).

In Denmark this species is often planted in hedges and as the fruiting is often profuse, large numbers of fruits are to be found on the ground. The volumes measured normally consisted of stones with varying amounts of flesh left.

One among the small number of badgers from the autumn (no. 22) contained no less than ½ l of acorns. This is the only occurrence of a food constituent often mentioned by other authors, but it is possible that a larger material of badgers from suitable areas would demonstrate this source of food to be more important.

Small amounts of apple remains (*Pirus malus* L) were found once in September and once in March.

Fruits of *Vaccinium* spp. do not occur at all. This contrasts with Notini's report on the Swedish badger. However, the difference can be explained by the different environment in the two countries.

The species in question do not occur plentifully in the parts of Denmark from where the bulk of the badgers became available. In the Swedish conifer forests, on the contrary, they are dominating especially in the open forests. This is parallelled by the fact that the Swedish language owns a special word "Skogsbär" (woodberries) for the fruits, which is not the case in Danish.

It is worth to notice that the plant remains found in the present material in all cases were fruits while leaves, shoots and roots were not found at all.

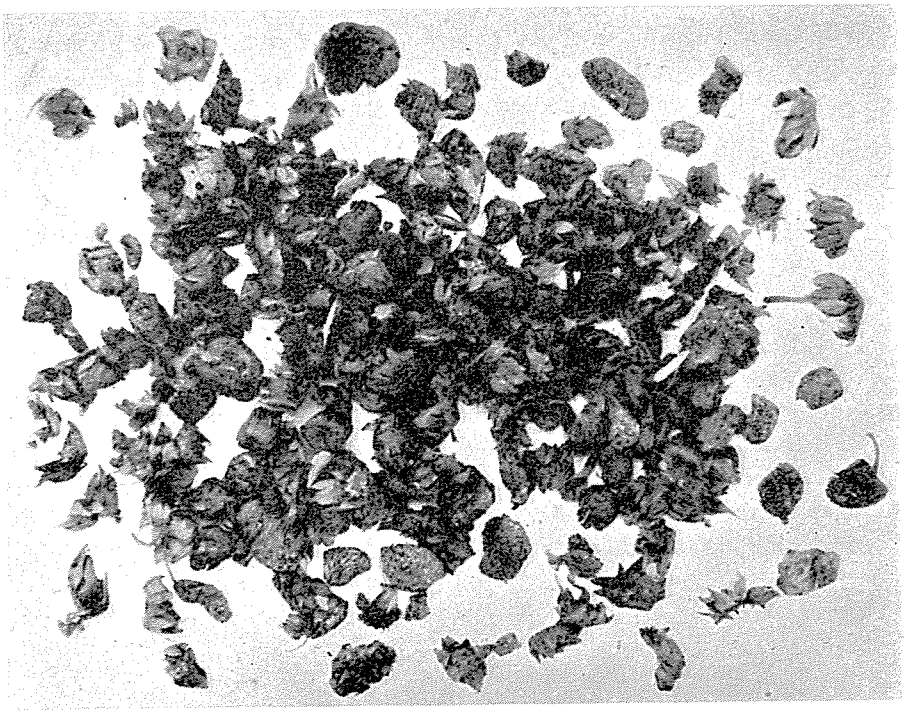

Fig. 20. Strawberries (Fragaria) from badger no. 224.
(Jordbær fra grævling nr. 224).

Notini (l.c.) mentions green parts of different plants in the Swedish material, although they do not contribute any large part of the food. Also Neal (l.c., pag. 66) mentions that the English badgers feed on green parts of plants.

The difference cannot be explained. In the group "unidentified material" some plant matter did occur, however, it seemed to be withered grass, and it is assumed to be ingested accidentally with e.g. earthworms, no more importance has been ascribed to it than to the splinters of wood, rubber bands and other accidental contaminants found.

Also roots are specifically mentioned from Sweden and England. It has not been possible to demonstrate the presence of this category either in the Danish material. However, there is a possibility that the Danish badgers will take this item during spring and autumn, from which period my material is rather poor.

On the other hand it is remarkable that potatoes, playing a distinct role in Sweden have not been found in this material in spite of the distribution of potato-growing in Denmark.

The same applies to fungi among which Notini (l.c. p. 172) mentions several species of some importance. Again this may be ascribed to the small material of badgers from the late autumn. However, there is no reason to believe that the Danish badgers do not eat fungi as the Swedish and English badgers do so.

FOOD CONSTITUENTS FROM JANUARY, FEBRUARY AND MARCH 1951

During the first year of this investigation a bonus was also paid for badgers from the winter months. More than 100 badgers became available from the three months mentioned, most of them not having been killed during their surface activity but dug out of their sets early in the day. However, the greater number of stomachs proved to be empty, and so the bonus was restricted to badgers from the summer period.

Only 12 individuals (from the period January 18–March 23) contained remains which could be identified.

They can only serve to give a rough idea of the diet of the badger at this time of the year.

No less than 7 of these stomachs contained remains of adult birds, the following species being represented:

Pheasant (*Phasianus colchicus* L.)	1	individual,
Gull (*Larus* sp.)	1	–
Hooded Crow (*Corvus corone cornix* L.)	1	–
Blackbird (*Turdus m. merula* L.)	2	individuals,
Redwing (*Turdus m. musicus* L.)	1	individual
Starling (*Sturnus v. vulgaris* L.)	1	–
House-Sparrow (*Passer d. domesticus* L.)	1	–
Chaffinch (*Fringilla c. coelebs*)	1	–

One specimen could not be identified.

The birds mentioned represent by far the commonest food items during this part of the year, as far as the present material is concerned, and there can hardly be any doubt that to a large extent the badger feeds on carrion during this part of the year. On the other hand it is well known that the badger shows little surface activity during the winter, and possibly it eats very little during these months. The large number of completely empty stomachs is in favour of this assumption.

Among the other food remains from these winter and early spring badgers can be mentioned:

1 stomach	contained	1	field vole (*Microtus arvalis*),
1	–	–	1 common shrew (*Sorex araneus*),
2 stomachs	–	1	toad (*Bufo bufo*),
4	–	–	negligible amounts of beetle or earthworm remains.

Curiously one badger (no. 120, March 8) contained 160 cc of oats.

One stomach contained remains of apples (*Pirus malus* L.).

Thus it appears probable that carrion is taken during the winter also and probably to a larger extent than during the summer. Also Notini (1948, p. 156) and Neal (1948, p. 60) mention a few finds of carrion.

SOME SPECIAL FOOD CONSTITUENTS

Among the items found but not yet discussed it can be mentioned that badger no. 154 (May 16, 1951) contained remains of a fairly big trout (*Salmo trutta*) (Identified by U. Møhl Hansen, Copenhagen). In the main list and the diagram fig. 2, the case has been listed under the category "Unidentified" (the volume was 110 cc).

Also Notini (1948, p. 156) mentions two cases of fish serving as food for the badger.

In this place it must also be mentioned that there was one exception to the statement that oats were the only cereal present. Badger no. 303 (May 21, 1952) contained 20 cc of ripe barley seeds. Of course, they cannot come from a field at this time of the year but have probably been found accidentally somewhere.

THE FOOD OF THE BADGER IN DENMARK COMPARED WITH OTHER COUNTRIES

A comparison between the choice of food of the badger in Denmark and in other countries shows the *categories* to be largely the same. Of course, the different environments may cause some discrepancies. Thus Frank (in Zeitschrift für Jagdkunde, 1940) mentions that it can cause a considerable damage to vine-yards in Germany.

In the same way the English badgers are offered rabbits as a source of food.

It is surprising that an American badger (*Taxidea taxus*) in Iowa shows almost identical habits, even the beetles found belong to the same genera as found here, the same applies to voles and eggs of pheasant and ducks (cf. Errington in Journal of Mammalogy, 1937). The staple food, *Citellus*, is, of course, unknown in Denmark, but the rabbits taken by the badger in England is a close parallel.

Certain *details* may be different, e.g. Neal (l.c., p. 65–67) reports that bark of sycamore and beech is eaten in the spring.

Concerning the cereals Krönig (in Handbuch der Deutschen Jagd I, Berlin 1941) and Frank (1940) report that wheat is eaten in addition to oats, however, the relative importance of the two cereals is not stated. Notini and Neal mention oats only.

Also concerning the green part of plants the Danish material contrasts with the Swedish and English (Errington also mentions the occurrence of small amounts of grass and other vegetable constituents in the stomachs of the badger in Iowa, however, he thinks that it has been taken accidentally).

It is remarkable that Notini (l.c.) did not find a single shrew in the Swedish badgers examined by him. Perhaps this is the most striking difference between the two investigations.

The *amounts* of the individual food constituents present is, of course, highly variable in the different countries. They will tend to reflect the different opportunities offered the badger under the different circumstances.

In this connection the Swedish material attracts the greatest interest because of its size and the details given regarding the quantitative composition of the stomach contents throughout the year.

Earthworms appear to be very important in Denmark and in Sweden. The amounts of insects—especially the large beetles and nests of wasps and bumblebees—and small mammals are comparable in the two countries. Snails and slugs are also of frequent occurrence, but the amounts present were small in either case.

The occurrence of reptiles is similar in the two materials.

Concerning the remaining categories the difference is striking.

The amphibia were found to be very important in Denmark during the summer—constituting 35 per cent of the volume during the first half of July—in Notini's material relatively few cases are reported and very small amounts were present.

Birds and eggs were found in such small amounts in the Swedish badgers that the items could not even be indicated in the diagrams. In the Danish

material they contributed upwards of 20 per cent. of the volume during the early summer.

These discrepancies can perhaps be explained by the different climatic conditions in the two countries and a consequent change in the population densities of the species concerned.

"Roots and grass" contributing a noticeable fraction of the food of the Swedish badger (in June c. 10 per cent) is totally absent in my material.

The green parts of plants appear to reach their peak in the Swedish material simultaneously with the maximum occurrence of amphibia and birds in the stomach contents of the Danish badgers. Perhaps more animal food items are present in Denmark at this time of the year than in the (more northern) areas from where Notini obtained his material.

The easily explained difference in the occurrence of fruits of *Vaccinium* has already been discussed (p. 44).

Oats were also found in the Swedish material, however, the amounts present were much smaller and it occurred later in the year (particularly in September and October). This is explained by the fact that the cereals ripe later in Sweden. In this connection it can be mentioned that also Notini thinks the search for oats to be directed.

Thus the food habits of the badger are seen to be almost identical in the different countries. The discrepancies can largely be explained by the different opportunities offered in the different environments, the categories of food taken remain unchanged.

Notini finds a difference in the choice of food and the amounts present in the male and female. The size of my material does not justify a discussion of the problem. However, there is a tendency for the females to contain more food remains than the males during the early summer, while the males contain the larger amounts later on (in this country already from June).

If the Danish figures are reliable in this respect one is tempted to think that the larger amounts of food in the female is caused by the care for the offspring, while the increased amounts found in the males could be connected with the fact that the males tend to weigh a little less than 1 kg more than the females.

RELATION BETWEEN BADGER AND GAME SPECIES

The preceding pages are an attempt to answer the question of the food constituents of the badger in Denmark.

The next attempt will be to answer the following two questions:

(1) Does the badger take game species, especially young individuals and eggs and

(2) does it affect the size of a game population?

The first question is easy to answer, it does take young individuals of various game species but only its predation upon eggs of pheasant and partridge seems to be a recurrent phenomenon.

Upwards of 30 per cent (28 among 103 badgers) of all badgers available from the period May 14 to July 15 contained birds' eggs. Therefore it seems fairly certain that a badger will eat any species of birds' eggs it comes across.

A few cases of young birds have been found but only few game birds were recovered from the stomachs; one case of partridge chicks—undoubtedly a hatching clutch taken alive; one case of a newly hatched mallard clutch from a duck nursery; and one case of two pheasant chicks.

Juvenile hares occurred in three cases but it cannot be decided if they have been taken live or found dead.

The importance of the badger for a game population must, therefore, be seen in connection with the predation upon nests of pheasant and partridge in the first instance. The extent of this activity has already been mentioned. Among 103 badgers available from the breeding period of the two game birds 7 contained full clutches of pheasant or partridge.

On the basis of this—fairly high—percentage it is suggested that the extent to which the badger destroys pheasant and partridge nests is of the order of magnitude of one nest every fourteen days per badger. The data available are far from being satisfactory, however, they seem to provide the only available basis for a discussion in spite of their shortcomings. It must be borne in mind that the badgers came from districts with a medium sized game bird population, therefore the predation on nests of game birds may be more important on particularly good pheasant land. The assumption is not contradicted by informations obtained from reliable persons.

What this means to the pheasant (and in the same way to the partridge) populations cannot be discussed in detail, until we know more about their population dynamics. However, the immediate damage done by the badger is somewhat less than the raw figures show because of the fact that repeat layings will occur in most cases at least during the early part of the breeding period.

Although it can be stated with certainty that the badger takes eggs of game birds, this fact should not be put to the one-sided use of reviving the former propaganda against the badger. The importance of the predation on game birds is still largely unknown but it is believed to be small under average conditions, while it is recommended that the badger be kept at low densities if a particularly dense pheasant population is aimed at.

It is true that the badger population can endure a fair amount of shooting before it is seriously affected, but increased countermeasures on modern lines should never be put to use against it, and there is, as far as we know, no reason for doing so.

The pleasure of having this miniature bear in our small areas of wild nature should far exceed the small scale damage that is associated with it. Admittedly, it does not show up very much, observing the badger in its natural surroundings is a sport of its own. Neal's book on this charming animal is warmly recommended as a guide. The mere reading of it will certainly remove some of the ill-will against the badger.

SUMMARY

The stomach contents of 190 badgers were examined. By far the greater proportion of the badgers were killed during the period May 14 to early September. Only few of the badgers killed during the winter contained food remains. The badgers came from all over Denmark.

The total volume of stomach contents examined amounts to c. 44 l.

The remains of oats contributed 26 per cent of the total volume, earthworms 24, amphibia 16, insects 12, mammals 7, birds and birds' eggs 7, berries and other fruits 3, snails and slugs 1, reptiles 0.3, unidentified constituents 5 per cent.

The importance as a food source need not necessarily follow the percentages quoted, however, there can be no doubt that oats, earthworms, amphibia and insects are very important.

Small mammals (mice, voles and shrews), birds and birds' eggs occur so frequently that some importance must be ascribed to them.

The relative amounts of the various items present vary during the summer.

The occurrence of oats is restricted to the period 15 July to 1 September Earthworms occur during the greater part of the year but showing a peak in the early summer and early autumn. Amphibia occur throughout the summer until September with a peak during the first half of July. They seem to come in when the earthworms have their summer minimum. The insects are repre-

sented by several hundred species, however *Geotrupes*, and nests of bumble-bees and wasps contribute the greater part of the volume. Considerable amounts of *Geotrupes* are taken during the last half of May, being present—but in much smaller amounts—during the succeeding months. Bumble-bees and wasps occur in July and August only. Mammals, i.e. largely field voles (*Microtus*) and shrews (*Sorex araneus*) and particularly juveniles occur in maximum numbers from May to mid-July, i.e. during the breeding period of the species mentioned. Other mammals, i.e. hedgehog, mole and juvenile hares occur in a few cases only and no great importance can be attributed to them. Birds' eggs and youngs play some role in May and June. Adult birds have a peak of dominance from January to March. Probably they have been found dead, and perhaps carrion is the most important food source during winter and spring. Fruits, especially strawberries are only important during the summer. During the autumn plums occur. However, there are indications that this category (also represented by acorn) would prove to be more important in a more extensive autumn material of badgers. Snails and slugs only contribute a small volume, less than would correspond to the current opinion of their importance. The dominant species belong to the genus *Arion* and the family Helicidae. Reptiles are represented by lizards, slow-worm and grass snake but their importance is presumably negligible. This also applies to fish, only one trout having been found.

The investigation confirms the impression that the badger is almost omnivorous largely feeding on the items which are abundant at the various times of the year.

Another feature is that several items normally occur in one stomach, thus an individual specialization seems to be of rare occurrence, if present at all.

REFERENCES

The scattered literature on the badger has been considered in the two recent monographs:

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NEAL, ERNEST: The Badger. New Naturalist Monograph. London 1948.
and in:

FRANK, H. R.: Die Biologie des Dachses. Zeitschrift für Jagdkunde, Bd. 2, Berlin 1940.

DANSK RESUME AF DEN DANSKE GRÆVLINGS FØDE

SPECIELT I SOMMERMÅNEDERNE

(Der er dansk tekst vedføjet alle diagrammer, billeder og lister)

Forord.

De mange grævlinge, der er undersøgt, er indsendt af mange forskellige jægere. Af pladshensyn er deres navne imidlertid ikke anført. Jeg vil dog gerne rette en særlig tak til jagtkonsulenterne og især til overjagtkonsulenten, greve AHLEFELDT-BILLE.

Den grovere sortering af de enkelte grævlinges maveindhold er foretaget af jagtkonsulent EGON SØRENSEN og stud. mag. CARSTEN PEDERSEN. Enkelte fødeemner er artsbestemt af specialister, f. eks. pattedyrrester af cand. mag. VALENTIN JENSEN, Zoologisk Museum, København, rester af fugle og æg af mag. sc. og cand. med. BERNT LØPPENTHIN, København, insekter af cand. mag. SCHIØTZ-CHRISTENSEN, Naturhistorisk Museum, Århus, og snegle af dr. phil. P. BONDESEN, Naturhistorisk Museum, Århus.

Fotografier er taget af assistent KAI ULFKJÆR, Kalø.

Dr. phil. C. OVERGAARD NIELSEN, Molslaboratoriet, har assisteret på forskellig måde under behandlingen af materialet.

Indledning.

Den egentlige årsag til at undersøgelsen blev foretaget var, at der i 1948 udkom en bog af den svenske professor GÖSTA NOTINI: Biologiska Undersökningar över Grävlingen (Meles meles).

Denne undersøgelse gav det resultat, at grævlingen ikke kunne betyde noget for vildtet i Sverige. I Danmark vakte denne bog stor opsigt i forskellige kredse, og mange var tilbøjelige til uden videre at overføre de svenske resultater til Danmark.

Landbrugsministeriet og Jagtrådet rettede imidlertid henstilling til Vildtbiologisk Station om at foretage en supplerende undersøgelse, som kunne belyse forholdene her i landet.

Den simpleste måde at foretage ernæringsundersøgelser på, er i reglen at undersøge maveindholdet på et stort antal dyr. Denne metode vil vise, hvad grævlingen egentlig lever af og lejlighedsvis kan tage, men ved vurderingen af et sådant materiale, må man så vidt det er muligt, være opmærksom på, om

der er emner, som ikke findes eller kun sjældent forekommer i maverne til trods for deres hyppighed og lettilgængelighed for grævlingen — med andre ord prøve at skønne over, om der er emner, som grævlingen helt eller delvis undgår at æde.

Indsamling af materialet.

Fra sommeren 1950 og indtil først i august 1952 blev der af Vildtbiologisk Station betalt 20 kr. for hver grævling, skudt tidligt om morgenen. Der indkom ca. 400 grævlinge, men kun ca. halvdelen indeholdt føde. Trods den ret høje betaling var det vanskeligt at få tilstrækkelig mange grævlinge skudt på det rette tidspunkt.

Indsamlingen blev særlig intensiveret i sommermånederne. Det første år — 1950–51 — blev der også indsamlet om vinteren.

I listen side 74 ses hvormange grævlinge der er undersøgt i de enkelte tidsperioder igennem året.

På kortet side 8 er der med en prik angivet, hvor hver enkelt af de undersøgte grævlinge er skudt. Som det vil ses, er der grævlinge fra de fleste egne af landet, men flest fra Østjylland — og da specielt fra Vejle amt. Dette skyldes vist egentlig ikke, at der her findes flere grævlinge end så mange andre steder, men der var i dette område nogle få jægere, som gjorde usædvanlig meget ud af denne specielle jagt til støtte for undersøgelsen.

Man får det indtryk, at undersøgelsen som helhed må vise gennemsnitsforhold for Danmark. Der er en hel del grævlinge fra forholdsvis vildtrige (fasanrige) distrikter i Jylland, men jo også fra mindre velbesatte terræner. Der mangler desværre grævlinge fra de særligt fasanrige terræner på øerne. Maveindholdet blev på stationen sorteret og delt op i hovedgrupper og rumfangene af de enkelte grupper blev målt. Tallene over hele materialet findes i hovedlisten side 62.

De sønderdelte og delvis fordøjede føderester blev før sorteringen skyllet igennem en fin sigte og derved bortskylledes en hel del jord og meget findelte eller flydende føderester. Den samlede fødemængde af alle grævlinge udgjorde herefter ca. 44,000 ccm.

Gennemsnitlig fyldte rester af:

Havre	26%	Fugle og Æg	7%
Regnorme	24%	Forskellige frugter og bær	3%
Padder	16%	Snegle	1%
Insekter	12%	Krybdyr	0,3%
Pattedyr	7%	Ubestem. rester	5%

Betydningen som ernæring behøver jo ikke at være udtrykt ved volumen af føderester, så tallene skal betragtes med nogen reservation, men i hovedtrækkene må det dog antages at havre og regnorme spiller den største rolle, ligesom padder og insekter er af væsentlig betydning. Også småpattedyr og fugle må være af en mærkbar betydning.

De her nævnte tal er gennemsnitstal for alle de undersøgte grævlinge. Hvis man ser på de enkelte perioder af året, er emnernes betydning meget forskellig. I diagrammet side 10 er vist, hvor meget de enkelte fødeemner fyldte i de forskellige tidsperioder om sommeren.

Regnorme (se diagram fig. 3 side 12 og foto side 13) fandtes i større eller mindre mængder i 75 % af alle de undersøgte grævlinge. De forekom gennem hele sommerperioden, men i største mængde i for- og eftersommeren. Dette kan sættes i forbindelse med, at der dels er færre regnorme i højsommeren, dels at der på denne årstid findes rigeligt af andre fødeemner, f. eks. frøer og tudser.

Padder (se diagram fig. 5, side 14 og foto side 16) bestod næsten udelukkende af tudser og frøer. 54 % af alle grævlingene indeholdt et eller flere individer.

Som det tydeligt fremgår af diagrammet, er paddernes betydning udpræget størst i første halvdel af juli, og i denne periode udgør de ca. 1/3 af fødemængden.

Grævlingen tager tilsyneladende ligeså gerne skrubtudser som frøer. Der fandtes tillige enkelte strandtudser og 1 løgfrø samt enkelte salamandre.

I langt de fleste tilfælde fandtes der kun en eller 2 af disse padder i den enkelte mave, men i nogle fandtes de i stort antal (i et enkelt tilfælde 79 frøer i een mave).

Insekter (diagram fig. 7, side 17). Ca. 90 % af de undersøgte grævlinge indeholdt insekter i forskellige mængder. Insekterne bestod næsten udelukkende af de to hovedgrupper: a) biller, b) reder af humlebier og hvepse.

Blandt billerne fandtes individer fra mindst 121 slægter (repræsenterende flere hundrede arter — se side 18 —, men 85 % af individerne bestod af skarnbasser (73 %) og store løbebiller. Tages yderligere disse billers størrelse i betragtning, er det forståeligt at de aldeles dominerer billedet af grævlingens insektfangst.

Af diagrammet side 17 ses, at billerne spiller langt den største rolle i maj; i de øvrige sommermåneder kun en mindre rolle.

I juli og august kommer derimod reder af humlebier og hvepse til, og disse fylder nu en antagelig del af maveindholdet. Resterne af disse reder bestod hovedsagelig af kokoner og larver.

Insektlarver fandtes, men ikke i særlig store mængder i forhold til de øvrige. Det drejer sig om nogle hundrede stankelbenslarver og forskellige store billelarver. Også oldenborrelarver, smelderlarver o.s.v. fandtes.

Almindeligvis fandtes der 10–20 biller i den enkelte mave, sammen med flere andre fødeemner, men i nogle enkelte tilfælde fandtes grævlingemaverne totalt stoppet med store mængder af biller.

F. eks. indeholdt grævling nr. 308... 863 stk. voksne skarnbasser
og 210... 754 – – –

og der er flere lignende tilfælde.

Det er helt utroligt, at en grævling i løbet af en kort sommernat kan tage så mange skarnbasser — og der må foreligge særlige omstændigheder, hvor de pågældende grævlinge har fundet en ophobning af disse insekter (se fig. 8, side 21).

Rester af fugle og æg.

Hovedformålet med den her forelagte undersøgelse var at få undersøgt, i hvor høj grad grævlingen tog vildtyngel, specielt vedrørende fasaner og agerhøns.

Et blik på diagrammet fig. 2, side 10, og fig. 9, side 23, viser jo straks, at æg og fuglerester udgør en ret bemærkelsesværdig del af føden i sommerens første del.

Der kan tales om 3 grupper af føderester:

a) Organ- og fjerrester af voksne fugle samt tamhønsekyllinger. Se listen side 24.
b) Rester af fugleunger. Se listen side 26.
c) Rester af fugleæg. Se listen side 28.

Rester af *voksne fugle og tamhønsekyllinger* fandtes i 22 maver (heraf dog de 7 tilfælde fra vinter og forår) og omfattede 6 tamhøns (hovedsagelig kyllinger), 2 fasaner, 1 måge, 1 lærke, 2 krager, 3 solsorte, 1 vindrossel, 1 piber (engpiber?), 1 stær, 2 gråspurve, 1 bogfinke, 2 gulspurve samt 1 ubestemmelig (vist rørspurv).

Denne artsrige liste består hovedsagelig af fugle, som man ikke kan forestille sig, at grævlingen har taget levende. De må være taget som døde. Resterne af tamhøns bærer præg af, at det ofte drejer sig om slagteraffald fra møddinger, f. eks. fandtes i tamhønseresterne i nr. 347 flere spyfluelarver under huden.

Dværghønen med kyllinger er dog sandsynligvis et tilfælde, hvor grævlingen har taget familien levende.

Voksne fasaner fandtes i to tilfælde. Nu hører man ofte den antagelse fremsat, at en grævling kan tage en fasan eller en agerhøne på reden. Der er intet i dette materiale, der kan støtte denne antagelse, idet den eneste fasanhøne, der er fundet, stammer fra midten af marts, altså længe før rugesæsonen. I en mave

fra juli fandtes en fasanhane, men da fasanhaner jo ikke ruger, er det snarest sandsynligt, at den pågældende grævling har fundet fasanhanen død.

Ser man på listen over de fundne *fugleunger* (side 26) ses den at omfatte arter, der ruger på eller nær ved jordoverfladen. I nogle tilfælde kan grævlingen have fundet ungerne døde, men da det oftest drejer sig om flere unger af samme størrelse, altså åbenbart kuld, er der næppe tvivl om, at grævlingen har tømt reder med levende unger. Som det ses af listen, fandtes der af småfugle unger af sanglærke, mejser, sangdrossel, solsort, bynkefugl, rødhals, løvsanger, tornirisk, bogfinke og (især) gulspurv.

Fra et jagtligt synspunkt falder tilfældet med de 14 gråandeællinger i øjnene. Dette tilfælde stammer fra anderiet på Kalø. Anderiet omfatter et indhegnet areal på ca. 2 tdr. land, og der ruger her et halvt hundrede ænder. Grævlingen var brudt ind gennem hegnet og blev skudt, da den var på vej ud.

De 10 af ællingerne var nyklækkede, og åbenbart har grævlingen taget ællingerne i reden.

Dette er jo et specielt tilfælde, og den pågældende grævling har haft usædvanlig gode muligheder for at finde en anderede, men det viser jo også, at grævlingen kan tage ællinger, når lejligheden er der.

De to agerhønsekyllinger var nyklækkede og fandtes sammen med 5 agerhønseæg — åbenbart har den pågældende grævling taget et klækkende kuld.

Listen over de fundne *fugleæg* (side 28) viser forekomst af forskellige småfugleæg, især af gulspurv. I 4 tilfælde forekom et enkelt tamhønseæg. Der er også en del tilfælde, hvor der er fundet et enkelt agerhønse- eller fasanæg.

Forekomsten af disse enkelte æg kan jagtligt set ikke volde ængstelse, men i 7 tilfælde fandtes hele kuld, d.v.s. 5–12 æg af agerhøne eller fasan.

Pattedyr.

Pattedyrrester udgør en ikke uvæsentlig del af grævlingens føde i højsommeren (fig. 2) og 63 eller lidt over 30 % af alle grævlinge indeholdt pattedyr. Det drejer sig næsten udelukkende om rester af mus og spidsmus og især af unger af disse (liste side 32).

Der blev konstateret ca. 185 markmus (+ enkelte rødmuse- og vandrotteunger)
ca. 40 skovmus
og ca. 200 spidsmus.

Mus og spidsmus findes således hyppigt, men gennemsnitlig drejer det sig ikke om mere end et par mus pr. nat pr. grævling.

Det er bemærkelsesværdigt, at grævlingen æder spidsmus og oven i købet så forholdsvis hyppigt.

Af andre pattedyr blev der fundet:

Pindsvin i 2 tilfælde,
Muldvarp i 7 tilfælde,
Harekilling i 3 tilfælde.

Disse tilfælde er så få, at de nævnte pattedyr ikke kan spille nogen rolle for grævlingen — og det er bemærkelsesværdigt, at grævlingen sjældent æder harekillinger i betragtning af disse dyrs hyppighed.

Der er ingen grund til at antage, at grævlingen ikke vil tage spæde harekillinger, hvis den finder dem eller kan få fat på dem, men det sker åbenbart sjældent. I de nævnte tre tilfælde er der forøvrigt den mulighed, at grævlingen kan have fundet harekillingerne døde.

I England f. eks. tager grævlingen kaninunger i stor stil og efterstræber dem bevidst, d.v.s. den graver ned til kaninboet. Spæde kaninunger er jo imidlertid betydelig mere hjælpeløse end harekillinger, som kan flygte, blot de er få dage gamle.

Snegle.

Det er en almindelig antagelse, at grævlingen æder snegle, og dette er også bekræftet ved denne undersøgelse, idet 14 % af de undersøgte grævlinge indeholder rester af disse.

Slægt og art af de fundne snegle ses side 39, og det ses, at langt de største mængder udgøres af skovsnegle og i mindre grad af havesnegle.

Som føde for grævlingen kan snegle dog ikke betyde ret meget, idet de volumenmæssigt kun gennemsnitlig udgør 1 % af de fundne føderester. Kun i juni udgør de nogle få procent af fødemængden (se diagrammet side 10).

Krybdyr.

Krybdyr fandtes kun i meget få tilfælde, og det drejede sig da om stålorm, firben og en enkelt snog. Ingen hugorme fandtes.

Antagelig er de koldblodede krybdyr normalt ikke fremme på jordoverfladen om natten, når grævlingen fouragerer.

Havre.

Mængdemæssigt udgjorde havre den største del af føderesterne. Mens de fleste andre fødeemner fandtes igennem hele sommerperioden, fandtes havren af naturlige grunde næsten kun i sidste del af juli og i august (se diagram, fig. 2, side 10). På denne årstid er havren til gengæld et meget dominerende fødeemne.

80 % af grævlinge skudt i den periode indeholdt havre og oftest i ret store mængder.

Mens alle de øvrige fødeemner sikkert tages, når grævlingen tilfældigt møder dem på sin vej, er der ikke tvivl om, at havremarker besøges bevidst, og at der her er tale om retningsbestemt fødesøgen.

Andre planter.

Fraset havre spiller planter ikke større rolle for grævlingen om sommeren. I juli fandtes en del tilfælde, hvor grævlingen havde ædt jordbær, og i en enkelt mave fandtes brombær.

I september og oktober optræder blommer i en del tilfælde, især mirabeller. Desværre foreligger der kun meget få grævlinge fra eftersommeren. En af disse indeholdt forøvrigt ca. ½ l agern.

Da undersøgelser i vore nabolande viser, at grævlingen æder en hel del af disse frugter, er der næppe tvivl om, at danske grævlinge også søger denne føde om efteråret, hvor så mange af sommerens fødeemner ikke længere findes.

Rester af æbler fandtes i et par tilfælde. Rester af blåbær, tyttebær m. m. fandtes ikke. Nu findes disse bær jo ikke i særlig stor mængde i Danmark, i hvert fald ikke på de lokaliteter, hvorfra de undersøgte grævlinge stammer. Lokalt vil de muligvis spille en rolle.

Det er bemærkelsesværdigt, at de fundne planterester altid bestod af forskellige frugter og aldrig af løv, skud eller rødder.

Fødeemner fra januar, februar og marts 1951.

Som tidligere nævnt blev der også indsamlet grævlinge vinter og forår 1950–51.

Over 100 grævlinge indkom fra de nævnte tre måneder. Disse grævlinge havde i reglen tomme maver og indsamlingen på denne årstid blev derfor fremtidig standset.

12 grævlinge indeholdt imidlertid føderester, og af en ganske særlig karakter. Ikke mindre end 7 af maverne indeholdt fuglerester tilhørende en lang række arter (se listen side 46).

Disse fugle må utvivlsomt være taget som døde, og man får det indtryk, at når grævlingen tager føde vinter og forår, er det i væsentlig grad ådsler.

Der vil jo iøvrigt heller ikke være ret meget andet for grævlingen at æde på denne årstid. Udover fuglene fandtes rester af en markmus, en spidsmus og et par skrubtudser samt en ganske ringe mængde biller og regnorme.

Mærkeligt nok indeholdt en grævling fra 8. marts 160 ccm havre.

Udover de nævne fødeemner kan som et kuriosum nævnes, at en grævling fra maj 1951 havde ædt en ret stor ørred.

Den danske grævlings føde sammenlignet med forhold i andre lande.

Ved at sammenligne den danske undersøgelse med udenlandske undersøgelser viser det sig, at *arten* af føde egentlig er den samme, men der kommer forskelle ind, hvor naturforholdene er forskellige. Grævlinge i Tyskland f. eks. gør ofte skade på vinmarker, en mulighed som ikke foreligger i Danmark.

I England lever grævlinge for en stor del af kaniner, og der kunne nævnes flere tilfælde, som viser hvorledes grævlingen udnytter de foreliggende muligheder.

Visse *detaljer* er forskellige fra land til land. Detaljer, som er lidt vanskeligere at forklare. Det kan f. eks. nævnes, at i England finder grævlinge undertiden på at æde bark af ahorn og bøg. Fra Tyskland nævnes, at grævlingen også blandt kornsorter tager hvede. I Sverige er der ikke som i Danmark fundet spidsmus i grævlingemaverne. Både i England og Sverige synes grævlingen til en vis grad at æde grønne plantedele og rødder, emner, som ikke er fundet i de danske grævlinge.

Men fraset disse enkelte tilfælde er fødeemnernes art ens i de forskellige lande.

Men *mængden* af de enkelte fødeemner, der tages, er højst forskellig og er åbenbart betinget af de forskellige naturforhold. I denne forbindelse er en sammenligning med svenske forhold den mest nærliggende og den svenske undersøgelse er forøvrigt langt den største.

I begge lande spiller regnorme, insekter og i mindre grad småpattedyr en væsentlig rolle. Snegle findes i begge lande at blive ædt hyppigt, men i meget små mængder. Krybdyrs sparsomme optræden som fødeemne er også den samme.

Frøer og tudser spiller derimod en langt større rolle i Danmark end i Sverige. Fugle og æg forekommer ganske vist i det svenske materiale, men yderst sjældent, men derimod hyppigt i Danmark i sommerens første del.

Disse forskelle kan sandsynligvis forklares ud fra de to landes forskellige naturforhold og de forskelle i muligheder, der dermed bydes grævlingen. Det er i hvert fald let forklarligt, hvorfor »skovbær«, d.v.s. blåbær, tyttebær m. m., er fundet i så store mængder i de svenske grævlinge og ikke i de danske. »Skovbær« synes at spille samme rolle i Sverige som havre i Danmark, og de to emner forekommer i grævlingemaverne på samme tidspunkt. Havre ædes ganske vist af de svenske grævlinge, men i mindre omfang end i Danmark og på et senere tidspunkt (september–oktober), og dette svarer til, at korn har senere modningstid i størstedelen af Sverige.

Alt i alt må det antages, at det er de ydre kår, der bestemmer, hvad grævlingen fortrinsvis æder i de forskellige lande, og dette er jo også at vente vedrørende et så altædende dyr.

Man får ikke indtryk af nogen retningsbestemt fødesøgen bortset fra fouragering på havre i Danmark og på bær (og vel også på havre) i Sverige.

Grævlingen og vildtet.

Det foranstående skal være svaret på, hvad grævlingen egentlig lever af i Danmark, og det er også konstateret, at grævlingen tager vildt, men kun når det drejer sig om æg af fasaner og agerhøns, kan der være grund til at diskutere, om grævlingen betyder noget eller ikke.

Blandt 103 grævlinge i perioden 15. maj til 15. juli havde 7 individer hele kuld af fasan- eller agerhønseæg i maven.

Jeg tror ikke, disse tilfælde skyldes specialister blandt grævlinge. Mellem 25 og 30 % af grævlingene havde æg af een eller anden art i maven — hyppigst småfugleæg, og dette tyder på, at grævlinge normalt æder æg, når de møder dem på deres vej.

Det er absolut ikke muligt at angive med tal, hvad de 7 tilfælde betyder for fasan- eller agerhønsebestanden.

På den ene side kunne et sådant tal ved tilfældighedens spil være blevet lavere eller højere i et materiale som det foreliggende. Men selvom tallet skulle være et sandt udtryk for, hvad grævlinge fra et gennemsnitsterræn tager af fasan- og agerhønseæg (d.v.s. at en grævling skulle tage en rede hver 14. dag), spiller andre faktorer ind, som begrænser denne skade. F. eks. vil fasaner og agerhøns, hvis reder bliver ødelagt først på sæsonen, uden tvivl lægge nye kuld.

Det må erindres, at de undersøgte grævlinge stort set repræsenterer gennemsnitsforhold i Danmark vedrørende agerhøns og fasaner – og jeg kan ikke ud fra det foranstående antage, at grævlinge i almindelighed betyder noget særligt. På distrikter, hvor man har tætte bestande af fasaner, som f. eks. på adskillige godser, tager grævlingen utvivlsomt flere reder end på gennemsnitsterræner, og dette synspunkt er forøvrigt i overensstemmelse med professionelle jægeres.

Men hvad dette betyder for en fasanbestand, er uklart. Hvis man fjerner alle grævlinge på et distrikt, hvor mange flere fasaner får man så?

Noget andet er, at der lokalt kan ske alvorlige skader i anderier, fasanerier og eventuelt andre begrænsede lokaliteter, hvor der ruger usædvanlig mange fugle, hvis en grævling har lejlighed til at besøge disse.

Stedvis må det være tilrådeligt at bekæmpe grævlinge, og forøvrigt tåler en grævlingebestand givetvis en vis beskydning, men det skulle nødigt komme så vidt, at man brugte særlige tekniske midler (f. eks. gas) og drev udryddelseskrig. Dette kan der absolut ikke være begrundelse for.

For mange mennesker er det en tilfredsstillelse og charme at vide, at vi har denne lille bjørn i vor iøvrigt så kontrollerede natur. Kun få mennesker ser den, men det gør i reglen et stærkt indtryk, når det sker. De, der er interesseret i at vide noget om grævlingens liv og vaner, bør læse bogen af englænderen E. NEAL: The Badger.

Table V.

LIST OF THE
Liste over de

Badger (Grævling)	Sex (Køn)	Date (Dato)	Locality (Lokalitet)	County (Amt)	Mammals (Pattedyr)			
					Mice, Voles and Shrews (Mus og spidsmus)	Moles (Muldvarpe)	Hedgehogs (Pindsvin)	Hares (Harer)
					cc	cc	cc	cc
No.								
4	?	10/7 1950	Follerup Mølle pr. Fredericia	Vejle	43	.....	.....	.....
5	?	10/7 –	Karup v. Sæby.....	Hjørring	.....	.....	.....	.....
6	♂	24/7 –	Folehave Skov, Hørsholm.....	Frederiksborg	2	.....	.....	.....
7	♂	28/7 –	Follerup Mølle pr. Fredericia	Vejle	.....	.....	.....	.....
9	♂	30/7 –	Ry Nørreskov.....	Skanderborg	.....	.....	.....	.....
10	♂	8/8 –	Stenderup Skov pr. Varmark....	Vejle	10	.....	.....	.....
11	♂	9/8 –	Stenderup Skov pr. Varmark....	Vejle	.....	.....	.....	.....
12	♀	17/8 –	Stenderup Skov pr. Varmark....	Vejle	2	.....	.....	.....
13	?	22/8 –	Stenderup Skov pr. Varmark....	Vejle	.....	.....	.....	.....
14	♀	25/8 –	Fynshav, Als	Sønderborg	.....	.....	.....	.....
15	♂	28/8 –	Sevel, Vinderup	Ringkøbing	.....	.....	.....	.....
16	♀	2/9 –	Stenderup Skov pr. Varmark....	Vejle	.....	.....	.....	.....
17	♀	1/9 –	Fynshav, Als.....	Sønderborg	.....	.....	.....	.....
18	♂	9/10 –	Balskov pr. Mørke.....	Randers	.....	.....	.....	.....
22	♀	19/10 –	Volstrup Skov pr. Laurbjerg	Viborg	.....	.....	.....	.....
29	♀	25/11 –	Gallehus Skov pr. Møgeltønder...	Tønder	.....	.....	280	.....
59	♂	18/1 1951	Begtrup Mark pr. Knebel.....	Randers	.....	.....	.....	.....
60	♀	19/1 –	Bjørnholmsminde, Aastrup Sogn .	Ribe	1	.....	.....	.....
103	♂	19/2 –	Hedeager Flantage, Ølgod.....	Ribe	.....	.....	.....	.....
104	♂	20/2 –	v/Rodsnæs, Oreby, Falster.....	Maribo	.....	.....	.....	.....
120	♂	8/3 –	Aalund pr. Holsted.....	Ribe	3	.....	.....	.....
126	♀	12/3 –	Høghøj pr. Bække.....	Ribe	.....	.....	.....	.....
127	♂	13/3 –	Liliendal pr. Mern.....	Præstø	.....	....	.....	.....
128	♂	11/3 –	Nordhøjgaard v/Egtved.....	Vejle	.....	....	.....	.....
133	♀	17/3 –	Aastrup pr. Hvalsø.....	København	.....	.....	.....	.....
134	♀	20/3 –	Aastrup pr. Hvalsø.....	København	.....	.....	.....	.....
136	♂	23/3 –	Brorfelde Skov pr. Ugerløse.....	Holbæk	.....	.....	.....	.....
137	♂	26/3 –	Aal Plantage pr. Oxbøl.....	Ribe	.....	....	.....	.....
138	♀	23/3 –	Faarevejle.....	Svendborg	.....	.....	.....	.....
142	♀	11/4 –	Børsmose.....	Ribe	.....	.....	.....	.....
152	♂	14/5 –	Fløjstrup Skov.....	Aarhus	.....	.....	.....	.....

BADGERS EXAMINED
undersøgte grævlinge

Birds (Fugle)					Arthropods (Leddyr)		Plants (Planter)			
Adults & juv. & eggs (Voksne, unger og æg)	Reptiles (Krybdyr)	Amphibia (Padder)	Snails and Slugs (Snegle)	Earthworms (Regnorme)	Bumblebees and Wasps (Humlebier og hvepse)	Other Arthropods (Andre leddyr)	Oats (Havre)	Other plants (Andre planter)	Unidentified (ubestemt)	Total volume (Total volumen)
cc	cc	cc	cc	cc	cc	cc	cc	cc	cc	cc
2	.....	38	.....	75	.....	2	150	33	33	376
42	.....	230	.....	.....	.....	5	.....	.....	31	308
.....	.....	46	.....	160	6	10	500	.....	11	735
.....	.....	.....	.....	290	.....	1	80	.....	1	372
10	.....	1	.....	.....	.....	5	280	.....	.....	296
9	.....	.....	.....	29	27	5	460	.....	2	542
.....	.....	.....	2	45	8	12	500	.....	1	568
.....	.....	73	.....	40	.....	14	200	.....	2	331
.....	.....	.....	.....	85	.....	4	160	.....	1	250
.....	.....	28	.....	95	45	7	.....	.....	27	202
.....	.....	68	.....	.....	.....	102	150	.....	2	322
.....	.....	.....	.....	220	.....	11	.....	.....	12	243
.....	.....	.....	.....	240	.....	2	.....	.....	31	273
.....	.....	110	.....	300	.....	2	.....	.....	100	512
.....	.....	.....	.....	2	.....	27	.....	500	.....	529
.....	.....	.....	.....	.....	.....	.....	.....	.....	5	285
.....	.....	.....	.....	7	.....	1	.....	.....	12	20
135	.....	.....	.....	.....	.....	.....	.....	.....	.....	136
3	.....	.....	.....	.....	.....	.....	.....	.....	2	5
.....	.....	.....	.....	.....	.....	.....	.....	.....	15	15
.....	.....	45	.....	.....	.....	1	160	.....	.....	209
.....	.....	.....	.....	.....	.....	.....	.....	13	.....	13
55	.....	.....	.....	.....	.....	.....	.....	.....	.....	55
7	.....	.....	.....	.....	.....	.....	.....	.....	.....	7
18	.....	.....	.....	.....	.....	.....	.....	.....	6	24
12	.....	.....	.....	.....	.....	1	.....	.....	12	25
.....	.....	.....	.....	.....	.....	.....	.....	.....	28	28
.....	.....	2	.....	.....	.....	.....	.....	.....	.....	2
30	.....	.....	.....	6	.....	1	.....	.....	1	38
2	.....	45	.....	.....	.....	.....	.....	.....	.....	47
1	.....	.....	.....	110	.....	135	.....	.....	41	287

Badger (Grævling)	Sex (Køn)	Date (Dato)	Locality (Lokalitet)	County (Amt)	Mammals (Pattedyr)			
					Mice, Voles and Shrews (Mus og spidsmus)	Moles (Muldvarpe)	Hedgehogs (Pindsvin)	Hares (Harer)
No.					cc	cc	cc	cc
154	♀	16/5 1951	v/ Grindsted	Ribe	1	.....	.....	.....
155	♂	14/5 –	Sdr. Plantage Varde	Ribe	.....	.....	.....	.....
156	♀	21/5 –	Barritskov pr. Barrit	Vejle	20	.....	.....	.....
159	♀	25/5 –	Bidstrup Skov pr. Laurbjerg	Viborg	.....	.....	.....	.....
162	♀	27/5 –	Vilhelmsborg	Aarhus	100	.....	.....	.....
163	♂	28/5 –	Barritskov pr. Barrit	Vejle	.....	.....	.....	.....
164	♀	29/5 –	Barritskov pr. Barrit	Vejle	.....	.....	.....	.....
167	♀	30/5 –	Ringelmoseskov, Kalø pr. Rønde	Randers	20	.....	.....	.....
168	♂	31/5 –	Follerup Mølle pr. Fredericia	Vejle	2	.....	.....	.....
169	♀	31/5 –	Keldkær v/ Bredsten	Vejle	.....	.....	.....	.....
170	♂	1/6 –	Follerup Mølle pr. Fredericia	Vejle	.....	.....	.....	.....
171	♀	3/6 –	Houlbjerg v. Laurbjerg	Viborg	.....	.....	.....	.....
172	♂	3/6 –	Follerup Mølle pr. Fredericia	Vejle	.....	.....	.....	.....
174	♀	9/6 –	Rugaard Skov pr. Hyllested	Randers	70	.....	.....	.....
175	♀	10/6 –	Follerup Mølle pr. Fredericia	Vejle	.....	.....	.....	.....
177	♀	12/6 –	Havndal	Randers	.....	.....	.....	.....
180	♀	18/6 –	St. Hjøllund Plantage	Skanderborg	35	.....	.....	.....
181	♀	17/6 –	Randbølgaard Plantage	Vejle	118	.....	.....	.....
182	♀	19/6 –	Barritskov pr. Barrit	Vejle	.....	.....	.....	.....
183	♀	17/6 –	Karskov, Langeland	Svendborg	.....	.....	.....	.....
184	♂	22/6 –	Høisholt Skov, Tommerup	Odense	.....	.....	.....	.....
185	♀	24/6 –	Stovrup Skov	Vejle	.....	.....	.....	.....
186	♀	25/6 –	Taulov v. Fredericia	Vejle	.....	.....	.....	.....
187	♀	24/6 –	Blære, Ejdrup	Aalborg	.....	.....	.....	.....
191	♀	28/6 –	Binderup, Dalbyover	Randers	.....	.....	.....	.....
193	♀	1/7 –	Stovrup Skov	Vejle	28	.....	.....	.....
195	♀	29/6 –	Hestbjerg Plantage v. Holstebro	Ringkøbing	50	.....	.....	.....
196	♂	30/6 –	Barritskov, Barrit	Vejle	.....	.....	.....	.....
197	♂	30/6 –	Barritskov, Barrit	Vejle	.....	.....	.....	.....
198	♂	1/7 –	Volstrup pr. Rørbæk	Aalborg	.....	.....	.....	.....
201	♀	3/7 –	Barritskov pr. Barrit	Vejle	90	.....	.....	.....
203	♂	4/7 –	Barritskov pr. Barrit	Vejle	.....	.....	.....	.....
205	♀	8/7 –	Tokkekøb Hegn	Frederiksborg	1	.....	.....	.....

Birds (Fugle)					Arthropods (Leddyr)		Plants (Planter)			
Adults & juv. & eggs (Voksne, unger og æg)	Reptiles (Krybdyr)	Amphibia (Padder)	Snails and Slugs (Snegle)	Earthworms (Regnorme)	Bumblebees and Wasps (Humlebier og hvepse)	Other Arthropods (Andre leddyr)	Oats (Havre)	Other plants (Andre planter)	Unidentified (ubestemt)	Total volume (Total volumen)
cc	cc	cc	cc	cc	cc	cc	cc	cc	cc	cc
3	.....	8	1	13	.....	173	.....	.....	220	419
.....	.....	.....	.....	20	.....	1	.....	.....	.....	21
1	.....	15	.....	2	.....	1	.....	.....	6	45
9	.....	.....	.....	310	.....	5	.....	.....	45	369
315	.....	25	.....	40	.....	2	.....	.....	.....	482
.....	.....	.....	20	50	.....	25	.....	.....	20	115
.....	.....	.....	13	320	.....	11	.....	.....	45	389
2	.....	.....	.....	450	.....	2	.....	.....	23	497
.....	.....	25	.....	330	.....	4	.....	.....	20	381
.....	.....	.....	.....	50	.....	2	.....	.....	20	72
.....	.....	.....	.....	350	.....	1	.....	.....	1	352
.....	18	.....	.....	15	.....	13	.....	.....	13	59
.....	.....	.....	.....	220	.....	1	.....	.....	.....	221
25	.....	70	2	110	.....	13	.....	.....	40	330
.....	.....	20	35	50	.....	2	.....	.....	25	132
65	.....	370	50	9	.....	5	.....	.....	31	530
.....	34	75	20	.....	.....	27	.....	.....	20	211
.....	.....	.....	15	9	.....	31	.....	.....	28	201
.....	.....	.....	1	.....	.....	.....	.....	.....	.....	1
.....	.....	.....	.....	7	.....	1	.....	.....	.....	8
.....	.....	.....	11	.....	.....	1	.....	.....	4	16
19	.....	.....	15	100	.....	3	.....	.....	22	159
30	.....	7	.....	50	.....	1	.....	.....	20	108
.....	.....	170	.....	35	.....	181	.....	.....	3	389
33	.....	60	.....	.....	25	.....	.....	.....	25	143
37	.....	7	45	3	.....	4	.....	.....	28	152
20	.....	825	.....	.....	.....	16	.....	.....	.....	911
.....	.....	25	30	28	.....	7	.....	.....	35	125
25	.....	10	5	17	.....	8	.....	.....	50	115
.....	.....	215	.....	1	.....	27	.....	.....	14	257
1	.....	25	.....	30	.....	2	.....	30	30	208
.....	.....	.....	3	27	.....	.....	.....	.....	15	45
.....	.....	.....	.....	.....	.....	4	.....	.....	22	27

Badger (Grævling)	Sex (Køn)	Date (Dato)	Locality (Lokalitet)	County (Amt)	Mammals (Pattedyr)			
					Mice, Voles and Shrews (Mus og spidsmus)	Moles (Muldvarpe)	Hedgehogs (Pindsvin)	Hares (Harer)
No.					cc	cc	cc	cc
206	♀	8/7 1951	Tokkekøb Hegn	Frederiksborg	.....	.....	.....	.....
207	♂	9/7 –	Neder Vrigsted pr. Hornsyld	Vejle	.....	.....	.....	.....
208	♀	8/7 –	Stovrup Skov	Vejle	.....	.....	.....	.....
210	♀	10/7 –	Plantage v. Sulsted	Aalborg	10	.....	.....	.....
211	♂	12/7 –	Hede 10 km s. f. Aalborg	Aalborg	.....	60	.....	.....
214	?	13/7 –	v. Alling	Viborg	.....	25	.....	.....
215	♀	14/7 –	Terp v. Ulstrup	Viborg	.....	.....	.....	.....
216	♂	15/7 –	indsendt fra Aabenraa	Aabenraa	.....	.....	.....	.....
217	♂	15/7 –	Haraldskær	Vejle	22	.....	.....	.....
218	♀	15/7 –	Haraldskær	Vejle	15	55	.....	.....
219	♂	16/7 –	v. Gern	Skanderborg	.....	.....	.....	.....
220	♂	15/7 –	Sakstrup, Bjergby	Hjørring	22	.....	.....	.....
222	♂	17/7 –	Egum pr. Fredericia	Vejle	.....	.....	.....	.....
223	♂	22/7 –	Aastrup Skovbakker	Vejle	19	.....	.....	.....
224	♂	22/7 –	Stovrup v. Horsens	Vejle	20	.....	.....	.....
225	♂	22/7 –	Raarup	Vejle	26	.....	.....	.....
226	♀	22/7 –	Haraldskær	Vejle	.....	.....	.....	.....
227	♂	24/7 –	Stenderup Skov	Vejle	.....	.....	.....	.....
228	♂	24/7 –	indsendt fra Skanderborg	Skanderborg	.....	.....	.....	.....
232	♂	27/7 –	Nørlund Skovdistrikt	Aalborg	.....	.....	.....	.....
233	♂	28/7 –	Stenderup Skov, Nørreskoven	Vejle	.....	.....	.....	.....
234	♀	30/7 –	Fensholt v. Odder	Aarhus	.....	.....	.....	.....
236	♀	30/7 –	Haraldskær	Vejle	.....	.....	.....	.....
238	♂	2/8 –	Volstrup Præstegårdsmark	Hjørring	52	.....	.....	.....
239	♀	2/8 –	Volstrup Præstegårdsmark	Hjørring	5	.....	.....	.....
240	♂	2/8 –	Lime i Salling	Viborg	.....	.....	.....	.....
241	♀	5/8 –	Lilballe pr. Bramdrupdam	Vejle	.....	.....	.....	.....
246	♀	6/8 –	Nørlund Skovdistrikt	Aalborg	.....	.....	.....	.....
249	♂	12/8 –	Værum	Randers	.....	.....	.....	47
251	♂	13/8 –	Barritskov pr. Barrit	Vejle	.....	.....	.....	.....
252	♂	12/8 –	Rosenholm	Randers	.....	.....	.....	.....
253	♂	12/8 –	Rosenholm	Randers	.....	.....	.....	.....
254	♀	12/8 –	Rosenholm	Randers	.....	.....	.....	.....

Birds (Fugle)					Arthropods (Leddyr)		Plants (Planter)			
Adults & juv. & eggs (Voksne, unger og æg)	Reptiles (Krybdyr)	Amphibia (Padder)	Snails and Slugs (Snegle)	Earthworms (Regnorme)	Bumblebees and Wasps (Humlebier og hvepse)	Other Arthropods (Andre leddyr)	Oats (Havre)	Other plants (Andre planter)	Unidentified (ubestemt)	Total volume (Total volumen)
cc	cc	cc	cc	cc	cc	cc	cc	cc	cc	cc
.....	.....	4	.....	.....	.....	20	.....	.....	16	40
.....	.....	118	.....	115	.....	1	.....	.....	20	254
.....	.....	7	30	3	.....	3	.....	.....	3	46
.....	.....	100	.....	3	.....	361	.....	.....	4	478
100	.....	180	.....	1	.....	5	.....	.....	.....	346
5	.....	340	.....	.....	13	3	.....	.....	47	433
.....	.....	50	.....	300	.....	2	.....	.....	22	374
.....	.....	.....	.....	14	.....	.....	.....	.....	.....	14
.....	.....	300	.....	1	.....	4	.....	115	21	463
.....	.....	190	.....	5	.....	3	.....	.....	31	299
.....	.....	130	.....	.....	12	6	230	35	.....	413
3	.....	.....	.....	30	20	112	.....	.....	40	227
.....	.....	2	.....	150	.....	1	11	.....	18	182
.....	.....	95	.....	.....	1	2	570	23	.....	710
.....	.....	30	.....	2	.....	2	200	95	.....	349
32	.....	160	.....	1	.....	2	180	1	.....	402
1	.....	20	.....	43	.....	4	150	.....	2	220
.....	.....	.....	16	63	.....	18	.....	.....	15	112
.....	.....	7	.....	.....	.....	.....	.....	.....	.....	7
.....	.....	.....	.....	.....	.....	2	.....	.....	.....	2
.....	.....	.....	.....	85	.....	.....	.....	.....	7	92
.....	.....	.....	.....	.....	.....	180	.....	.....	.....	180
.....	.....	23	.....	54	.....	1	240	.....	.....	318
.....	.....	130	.....	.....	.....	1	260	.....	.....	443
.....	.....	38	.....	3	43	13	250	.....	1	353
.....	.....	40	.....	260	.....	15	95	.....	.....	410
.....	.....	17	.....	15	.....	3	260	.....	.....	295
.....	.....	9	.....	2	190	5	300	.....	.....	506
.....	.....	38	.....	100	.....	1	380	.....	.....	566
.....	.....	.....	.....	30	.....	1	270	.....	.....	301
.....	.....	3	.....	1	.....	4	68	.....	.....	76
.....	.....	.....	.....	3	.....	4	120	.....	.....	127
.....	.....	.....	.....	6	.....	3	140	.....	.....	149

Badger (Grævling) No.	Sex (Køn)	Date (Dato)	Locality (Lokalitet)	County (Amt)	Mammals (Pattedyr) Mice, Voles and Shrews (Mus og spidsmus) cc	Moles (Muldvarpe) cc	Hedgehogs (Pindsvin) cc	Hares (Harer) cc
255	♀	14/8 1951	Barritskov pr. Barrit	Vejle	.....	.....	.....	.....
256	♀	15/8 –	Grundet	Vejle	.....	.....	.....	.....
257	♂	15/8 –	Grundet	Vejle	.....	.....	.....	.....
258	♂	21/8 –	Rold Skov	Aalborg	.....	.....	.....	.....
259	♂	19/8 –	Straasø Plantage	Ringkøbing	.....	.....	.....	.....
260	♂	23/8 –	Nørlund Skovdistrikt	Aalborg	15	.....	.....	.....
261	♂	22/8 –	Lime i Salling	Viborg	.....	.....	.....	.....
262	♀	22/8 –	Lime i Salling	Viborg	5	.....	.....	.....
263	♂	25/8 –	v. Sindal	Hjørring	14	.....	.....	.....
264	♀	29/8 –	Leerbæk v. Vejle	Vejle	.....	.....	.....	.....
265	♂	29/8 –	Statsskoven v. Østerholm, Als	Sønderborg	.....	.....	.....	.....
266	♂	30/8 –	Volstrup Skov, Bidstrup pr. Laurbjerg	Viborg	.....	.....	.....	.....
267	♂	30/8 –	Mommark, Als	Sønderborg	.....	.....	.....	.....
269	♂	2/9 –	Stenderup Skov	Vejle	.....	.....	.....	.....
271	♂	11/9 –	Fensholt pr. Odder	Aarhus	.....	.....	.....	.....
272	♀	12/9 –	Hasager Skov, Bidstrup pr. Laurbjerg	Viborg	.....	.....	.....	.....
273	♂	13/9 –	Skærup v. Børkop	Vejle	.....	.....	.....	.....
274	♀	18/9 –	Rold Skov	Aalborg	.....	.....	.....	.....
276	♂	30/9 –	Follerup pr. Fredericia	Vejle	.....	.....	.....	.....
277	♂	25/10 –	Brændeskov n. f. Svendborg	Svendborg	.....	.....	.....	.....
278	♂	8/11 –	Schuberts Plantage v. Ringkøbing	Ringkøbing	.....	.....	.....	.....
279	♂	13/11 –	indsendt fra Herning	Ringkøbing	.....	.....	.....	.....
292	♀	22/4 1952	Hede v. Ørre	Ringkøbing	.....	.....	.....	.....
294	♀	5/5 –	Hvilsum Plantage	Viborg	.....	.....	.....	.....
298	♀	18/5 –	Bække Skov, Tappernøje	Præstø	.....	.....	.....	.....
299	♀	18/5 –	Raaby pr. Dalbyover	Randers	45	.....	.....	.....
301	♂	18/5 –	Aashøj Skov, Gl. Køgegaard	Præstø	38	.....	.....	.....
302	♀	22/5 –	Gaurslund v. Vejle	Vejle	.....	.....	.....	.....
303	♂	21/5 –	Halskov v. Bælum	Aalborg	.....	.....	.....	.....
304	♀	22/5 –	Tostrup s. v. f. Aalborg	Aalborg	45	.....	.....	.....
305	♀	23/5 –	Meilgaard Overskov, Tranehuse	Randers	.....	.....	.....	.....

Birds (Fugle)					Arthropods (Leddyr)		Plants (Planter)			
Adults & juv. & eggs (Voksne, unger og æg)	Reptiles (Krybdyr)	Amphibia (Padder)	Snails and Slugs (Snegle)	Earthworms (Regnorme)	Bumblebees and Wasps (Humlebier og hvepse)	Other Arthropods (Andre leddyr)	Oats (Havre)	Other plants (Andre planter)	Unidentified (ubestemt)	Total volume (Total volumen)
cc	cc	cc	cc	cc	cc	cc	cc	cc	cc	cc
5	.....	100	.....	14	.....	5	370	.....	.....	494
.....	.....	.....	.....	38	.....	.....	110	.....	.....	148
.....	.....	.....	.....	70	.....	.....	500	.....	.....	570
.....	.....	8	.....	.....	370	1	.....	.....	.....	379
.....	.....	40	.....	4	.....	.....	365	.....	.....	409
.....	.....	.....	.....	27	52	2	470	.....	.....	566
.....	.....	.....	.....	60	.....	2	275	.....	.....	337
.....	.....	.....	.....	63	.....	1	250	.....	.....	319
.....	.....	18	.....	21	.....	115	240	.....	.....	408
.....	.....	18	.....	38	.....	7	150	.....	.....	213
.....	.....	40	.....	180	.....	1	.....	.....	.....	221
.....	.....	.....	.....	130	.....	1	35	.....	.....	116
.....	.....	1	.....	100	.....	35	.....	.....	15	151
.....	.....	.....	.....	75	.....	10	.....	.....	20	105
.....	.....	.....	.....	45	.....	6	.....	125	.....	176
.....	.....	.....	.....	130	.....	20	.....	.....	20	170
.....	.....	3	.....	60	.....	2	80	85	.....	230
.....	.....	.....	.....	380	.....	4	60	.....	.....	444
.....	.....	.....	.....	95	.....	7	.....	.....	20	122
.....	.....	.....	.....	.....	.....	24	.....	250	.....	274
.....	.....	.....	.....	95	.....	1	.....	.....	4	100
.....	.....	.....	.....	3	.....	4	.....	.....	16	23
.....	.....	.....	.....	.....	.....	2	23	.....	.....	25
1	.....	20	.....	.....	.....	135	.....	.....	1	157
610	.....	.....	.....	15	.....	10	.....	.....	.....	635
.....	.....	7	.....	9	.....	6	8	.....	.....	75
.....	.....	.....	.....	110	.....	3	.....	.....	18	169
2	.....	1	.....	33	.....	12	.....	.....	4	52
1	.....	1	.....	18	.....	43	.....	20	.....	83
1	.....	50	.....	40	.....	90	.....	.....	18	244
.....	.....	1	1	37	.....	7	.....	.....	9	55

Badger (Grævling)	Sex (Køn)	Date (Dato)	Locality (Lokalitet)	County (Amt)	Mammals (pattedyr)			
					Mice, Voles and Shrews (Mus og spidsmus)	Moles (Muldvarpe)	Hedgehogs (Pindsvin)	Hares (Harer)
No.					cc	cc	cc	cc
307	♀	23/5 1952	Terp Skov, Ulstrup	Viborg	12	.....	.....	.....
308	♂	22/5 –	Rørbæk v. Nr. Snede	Skanderborg	8	.....	.....	.....
310	♀	25/5 –	v. Sindal	Hjørring	30	.....	.....	.....
311	♂	23/5 –	Foldingbro	Ribe	48	.....	.....	.....
312	♂	25/5 –	Højrup pr. Ferup	Ribe	110	.....	12	.....
313	♂	28/5 –	Grundet Skov	Vejle	.....	.....	.....	.....
314	♂	28/5 –	Grundet Skov	Vejle	.....	.....	.....	.....
315	♀	1/6 –	Hestehaven, Kalø pr. Rønde	Randers	43	.....	.....	.....
317	♂	5/6 –	Ringelmoseskov, Kalø pr. Rønde.	Randers	.....	.....	.....	.....
318	♀	4/6 –	Rugaard Skov, Hyllested	Randers	48	.....	.....	.....
319	♂	5/6 –	4 km n. v. f. Sønderborg	Sønderborg	.....	.....	.....	.....
320	♀	5/6 –	Barritskov pr. Barrit	Vejle	.....	.....	.....	.....
321	♂	5/6 –	Sæderup v. Nøvling	Aalborg	.....	.....	.....	.....
322	♀	6/6 –	Barritskov pr. Barrit	Vejle	9	.....	.....	.....
323	♂	10/6 –	Stenalt Skov, Ørsted	Randers	142	230	.....	.....
324	♀	10/6 –	Hasager Skov, Bidstrup pr. Laurbjerg	Viborg	.....	.....	.....	.....
327	♂	12/6 –	Demstrup Skov v. Dalbyover	Randers	7	.....	.....	.....
329	♀	15/6 –	Fløjstrup Skov	Aarhus	2	.....	.....	.....
330	♀	15/6 –	Karup v. Sæby	Hjørring	1	.....	.....	.....
331	♀	15/6 –	Rugaard, Hyllested	Randers	5	.....	.....	.....
333	♂	15/6 –	Vork v. Egtved	Vejle	.....	.....	.....	.....
334	♂	18/6 –	Klosterskoven, Viby	København	30	.....	.....	.....
335	♀	20/6 –	Lerbæk Skov v. Vejle	Vejle	.....	.....	.....	.....
337	♀	23/6 –	Terp Skov, Ulstrup	Viborg	16	.....	.....	.....
338	?	24/6 –	Rugaard, Hyllested	Randers	.....	.....	.....	.....
340	♀	27/6 –	Saltø Skov v. Næstved	Sorø	.....	.....	.....	.....
341	♂	27/6 –	Dybdal Skov, Bjerre pr. Braaskov	Vejle	5	.....	.....	240
342	♀	28/6 –	Bjergby v. Hjørring	Hjørring	.....	.....	.....	.....
343	♀	30/6 –	Saltø Skov v. Næstved	Sorø	.....	.....	.....	.....
344	♀	30/6 –	Saltø Skov v. Næstved	Sorø	.....	.....	.....	.....
345	♂	29/6 –	Ulkebøl v. Sønderborg	Sønderborg	.....	.....	.....	.....
346	♀	2/7 –	Skærup v. Børkop	Vejle	.....	.....	.....	.....

Birds (Fugle)					Arthropods (Leddyr)		Plants (Planter)			
Adults & juv. & eggs (Voksne, unger og æg)	Reptiles (Krybdyr)	Amphibia (Padder)	Snails and Slugs (Snegle)	Earthworms (Regnorme)	Bumblebees and Wasps (Humlebier og hvepse)	Other Arthropods (Andre leddyr)	Oats (Havre)	Other plants (Andre planter)	Unidentified (ubestemt)	Total volume (Total volumen)
cc	cc	cc	cc	cc	cc	cc	cc	cc	cc	cc
51	.....	46	.....	32	.....	23	.....	.....	15	179
61	.....	40	.....	.....	.....	350	.....	.....	2	461
1	4	34	.....	4	.....	282	.....	.....	.....	355
44	.....	2	.....	40	.....	3	.....	.....	14	151
17	.....	200	.....	5	.....	3	.....	.....	20	367
.....	.....	.....	12	46	.....	4	.....	.....	17	79
.....	.....	40	.....	85	.....	1	.....	.....	9	135
1	.....	.....	.....	70	.....	2	.....	.....	30	146
504	.....	.....	.....	.....	.....	.....	.....	.....	.....	504
.....	.....	.....	.....	175	.....	8	.....	.....	43	274
.....	.....	.....	.....	480	.....	.....	.....	.....	.....	480
.....	.....	.....	.....	64	.....	2	.....	.....	6	72
.....	.....	2	.....	32	.....	17	.....	.....	5	56
.....	.....	30	.....	39	.....	3	.....	.....	21	102
120	.....	.....	.....	1	.....	4	.....	.....	29	526
115	.....	.....	.....	.....	.....	.....	.....	.....	.....	115
1	.....	38	.....	47	.....	1	.....	.....	.....	94
.....	.....	.....	.....	100	.....	2	.....	.....	9	113
9	.....	9	.....	.....	.....	2	.....	.....	3	24
31	73	5	.....	140	.....	3	.....	.....	37	294
.....	.....	.....	.....	115	.....	.....	.....	.....	.....	115
24	.....	5	.....	19	.....	5	.....	.....	10	93
.....	.....	.....	.....	17	.....	2	.....	.....	4	23
180	.....	7	.....	125	5	4	.....	.....	5	342
.....	.....	.....	7	.....	.....	15	.....	.....	1	23
.....	.....	.....	.....	100	.....	1	.....	.....	1	102
.....	.....	.....	.....	63	.....	2	.....	.....	1	311
.....	.....	.....	.....	.....	1	13	.....	.....	1	15
.....	.....	.....	.....	55	.....	2	.....	.....	4	61
.....	.....	.....	.....	16	.....	.....	.....	.....	3	19
1	.....	.....	.....	68	.....	2	3	27	10	111
.....	.....	38	.....	89	140	2	.....	.....	5	274

Badger (Grævling)	Sex (Køn)	Date (Dato)	Locality (Lokalitet)	County (Amt)	Mammals (Pattedyr)			
					Mice, Voles and Shrews (Mus og spidsmus)	Moles (Muldvarpe)	Hedgehogs (Pindsvin)	Hares (Harer)
					cc	cc	cc	cc
347	♀	2/7 1952	Hesselagergaard pr. Hesselager ..	Svendborg	.....	.....	.....	21
348	♀	4/7 –	Nørreskoven, Taarup Strand, Als	Sønderborg	.....	.....	.....	.....
349	♀	4/7 –	Statsskoven v. Østerholm, Als...	Sønderborg	.....	.....	.....	.....
350	♂	5/7 –	Saltø Skov v. Næstved.....	Sorø	26	.....	.....	.....
351	♂	8/7 –	v. Sindal.....	Hjørring	.....	.....	.....	.....
352	♀	6/7 –	Selsø-Lindholm.....	København	77	.....	.....	.....
353	♂	8/7 –	Vemmetofte pr. Fakse.....	Præstø	39	.....	.....	.....
354	♂	7/7 –	Sønderskoven, Als.....	Sønderborg	.....	.....	.....	.....
355	♂	7/7 –	Ulkebøl Sogn, Als.....	Sønderborg	.....	.....	.....	.....
356	♀	9/7 –	Hørsholm Skovdistrikt	Frederiksborg	8	.....	.....	.....
357	♀	10/7 –	Saltø Skov v. Næstved.....	Sorø	33	.....	.....	.....
358	♀	10/7 –	Saltø Skov v. Næstved.....	Sorø	.....	.....	.....	.....
361	♀	11/7 –	Follerup pr. Fredericia.....	Vejle	50	.....	.....	.....
364	?	14/7 –	Allingkloster pr. Gravballe.....	Viborg	10	.....	.....	.....
365	?	13/7 –	Allingkloster pr. Gravballe.....	Viborg	1	.....	.....	.....
366	♂	14/7 –	Orupgaard v. Nykøbing Falster..	Maribo	.....	.....	.....	.....
367	♀	13/7 –	Rugbjerg, Ø. Løgum.....	Aabenraa	3	128	.....	.....
370	♂	20/7 –	Stovrup.....	Vejle	.....	.....	.....	.....
371	♂	19/7 –	Ulkebøl, Als.....	Sønderborg	.....	.....	.....	.....
372	♀	20/7 –	Vistoft, Mols.....	Randers	2	.....	.....	.....
373	♀	23/7 –	Vemmetofte pr. Fakse.....	Præstø	8	.....	.....	.....
374	♂	26/7 –	Hasager, Bidstrup pr. Laurbjerg.....	Viborg	2	.....	.....	.....
375	♀	27/7 –	Nær Grumstrup v. f. Odder	Skanderborg	.....	.....	.....	.....
376	♂	28/7 –	Borrelund Skov, Kragerup, Ruds Vedby.....	Holbæk	.....	.....	.....	.....
378	♂	30/7 –	Terp pr. Ulstrup.....	Viborg	.....	32	.....	.....
379	♀	31/7 –	Barritskov pr. Barrit.....	Vejle	.....	.....	.....	.....
381	♂	1/8 –	Barritskov pr. Barrit.....	Vejle	27	.....	.....	.....
382	♀	3/8 –	Orupgaard, Nykøbing Falster ...	Maribo	.....	.....	.....	.....
383	♀	1/8 –	Storbank Plantage, Askjær, Brande	Vejle	9	.....	.....	.....
384	♀	6/8 –	Krogsbæk v. Søby, Mørke.....	Randers	.....	12	.....	.....

Birds (Fugle)					Arthropods (Leddyr)		Plants (Planter)			
Adults & juv. & eggs (Voksne, unger og æg)	Reptiles (Krybdyr)	Amphibia (Padder)	Snails and Slugs (Snegle)	Earthworms (Regnorme)	Bumblebees and Wasps (Humlebier og hvepse)	Other Arthropods (Andre leddyr)	Oats (havre)	Other plants (Andre planter)	Unidentified (ubestemt)	Total volume (Total volumen)
cc	cc	cc	cc	cc	cc	cc	cc	cc	cc	cc
106	.....	.....	.....	2	44	1	.....	.....	19	193
2	.....	.....	.....	115	.....	2	80	.....	11	210
.....	.....	200	2	30	.....	11	.....	.....	14	257
22	.....	.....	3	1	135	5	.....	.....	25	217
2	.....	.....	.....	.....	43	.....	.....	.....	1	46
.....	.....	15	.....	.....	100	3	.....	.....	36	231
3	.....	24	.....	2	54	.....	18	.....	11	151
.....	.....	48	.....	41	.....	2	.....	.....	8	99
.....	.....	48	25	2	.....	18	.....	.....	15	108
.....	.....	3	.....	.....	90	.....	.....	.....	9	110
.....	1	23	.....	.....	120	4	.....	.....	20	201
.....	.....	.....	.....	.....	34	3	.....	.....	3	40
.....	.....	43	2	.....	.....	4	180	12	.....	291
1	.....	75	.....	.....	102	4	.....	.....	23	215
.....	.....	340	1	1	19	3	.....	.....	12	377
.....	.....	75	.....	45	210	3	.....	.....	3	336
5	.....	60	.....	95	.....	.....	27	.....	24	342
1	.....	.....	3	26	.....	.....	.....	.....	6	36
.....	.....	.....	.....	57	40	1	80	.....	52	230
.....	.....	10	.....	4	.....	1	20	.....	12	49
.....	.....	60	.....	4	160	.....	2	.....	2	236
.....	.....	2	.....	1	162	3	113	11	4	298
.....	.....	40	.....	.....	.....	5	110	.....	1	156
.....	.....	3	.....	.....	.....	3	60	.....	1	67
.....	.....	120	.....	53	100	12	100	.....	2	419
.....	.....	2	.....	125	1	2	340	.....	.....	470
.....	.....	2	.....	26	90	18	220	.....	.....	383
18	.....	53	.....	100	.....	8	.....	.....	11	190
10	.....	52	.....	26	5	2	300	.....	.....	404
.....	.....	.....	.....	130	.....	2	20	.....	25	189

Table VI. LIST OF THE STOMACH CONTENTS DURING THE PERIOD ESPECIALLY STUDIED

(Mængden af føderester i de forskellige perioder af året)

		Number of badgers (Antal grævlinge)	cc total (ccm i alt)	Mammals (Pattedyr)		Birds adult and juv. and eggs (Fugle, voksne, unger og æg)		Reptiles (Krybdyr)		Amphibia (Padder)		Snails and slugs (Snegle)		Earthworms (Regnorme)		Insects (Insekter)		Oats (Havre)		Other plants (Andre planter)		Unidentified (Ubestemt)	
			cc	cc	%	cc	%	cc	%	cc	%	cc	%	cc	%	cc	%	cc	%	cc	%	cc	%
March	1950	–	–	–		–		–		–		–		–		–		–		–		–	
	1951	9	401	3		122		–		47		–		6		3		160		13		47	
	1952	–	–	–		–		–		–		–		–		–		–		–		–	
		9	401	3		122		0		47		0		6		3		160		13		47	
April	1950	–	–	–		–		–		–		–		–		–		–		–		–	
	1951	1	47	–		2		–		45		–		–		–		–		–		–	
	1952	1	24	–		–		–		–		–		–		1		23		–		–	
		2	71	0		2		0		45		0		0		1		23		0		0	
May 5.	1952	1	157	0		1		0		20		0		0		135		0		0		1	
May 14.–31.	1950	–	–	–		–		–		–		–		–		–		–		–		–	
	1951	11	3,077	143		331		–		73		34		1,695		361		–		–		440	
	1952	14	3,040	348		788		4		422		13		474		837		8		20		126	
		25	6,117	491	**8**	1,119	**18**	4		495	**8**	47	**1**	2,169	**36**	1,198	**20**	8		20		566	**9**
June 1.–15.	1950	–	–	–		–		–		–		–		–		–		–		–		–	
	1951	6	1,624	70		90		18		460		87		754		35		–		–		110	
	1952	14	2,915	487		781		73		84		–		1,263		44		–		–		183	
		20	4,539	557	**12**	871	**19**	91	**2**	544	**12**	87	**2**	2,017	**44**	79	**2**	0		0		293	**6**
June 16.–30.	1950	–	–	–		–		–		–		–		–		–		–		–		–	
	1951	13	2,539	231		164		34		1,179		142		249		305		–		–		235	
	1952	10	1,100	291		205		–		12		7		463		52		3		27		40	
		23	3,639	522	**14**	369	**10**	34	**1**	1,191	**33**	149	**4**	712	**20**	357	**10**	3		27	**1**	275	**8**

July 1.–15.	1950	2	684	43		44		–	268		–		75		7		150		33		64	
	1951	15	3,511	300		109		–	1,529		33		530		580		–		145		285	
	1952	18	3,698	396		141		1	992		33		423		1,156		305		12		239	
		35	7,893	739	9	294	4	1	2,789	35	66	1	1,028	13	1,743	22	455	6	190	2	588	8
July 16.–31.	1950	3	1,403	2		10		–	47		–		450		22		860		–		12	
	1951	12	2,987	65		33		–	467		16		398		51		1,761		154		42	
	1952	9	1,961	44		1		–	237		3		270		490		825		11		80	
		24	6,351	111	2	44	1	0	751	12	19		1,118	18	563	9	3,446	54	165	3	134	2
August 1.–15.	1950	2	1,110	10		9		–	–		2		74		52		960		–		3	
	1951	13	4,438	104		5		–	375		–		542		288		3,123		–		1	
	1952	4	1,166	48		28		–	107		–		282		125		540		–		36	
		19	6,714	162	2	42	1	0	482	7	2		898	13	465	7	4,623	69	0		40	1
August 16.–31.	1950	4	1,105	2		–		–	169		–		220		172		510		–		32	
	1951	10	3,169	34		–		–	125		–		623		587		1,785		–		15	
	1952	–	–	–		–		–	–		–		–		–		–		–		–	
		14	4,274	36	1	0		0	294	7	0		843	20	759	18	2,295	54	0		47	1
September	1950	2	516	–		–		–	–		–		460		13		–		–		43	
	1951	6	1,247	–		–		–	3		–		785		49		140		210		60	
	1952	–	–	–		–		–	–		–		–		–		–		–		–	
		8	1,763	0		0		0	3		0		1,245	70	62	3	140	8	210	12	103	6
October	1950	2	1,041	–		–		–	110		–		302		29		–		500		100	
	1951	1	274	–		–		–	–		–		–		24		–		250		–	
	1952	–	–	–		–		–	–		–		–		–		–		–		–	
		3	1,315	0		0		0	110		0		302		53		0		750		100	
November	1950	1	285	280		–		–	–		–		–		–		–		–		5	
	1951	2	123	–		–		–	–		–		98		5		–		–		20	
	1952	–	–	–		–		–	–		–		–		–		–		–		–	
		3	408	280		0		0	0		0		98		5		0		0		25	
Jan.–Febr.	1950	–	–	–		–		–	–		–		–		–		–		–		–	
	1951	4	176	1		138		–	–		–		7		1		–		–		29	
	1952	–	–	–		–		–	–		–		–		–		–		–		–	
		4	176	1		138		0	0		0		7		1		0		0		29	
total		190	43,818	2,902	7	3,002	7	130	0,3	6,771	16	370	1	10,443	24	5,424	12	11,153	26	1,375	3	2,248	5

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