INSECTA NORVEGIAE

Vol. 1

Atlas of the Coleoptera of Norway

1. Silphidae, Catopidae, Colonidae, Leptinidae

By

Dagfinn Refseth

Published by Norsk Entomologisk Forening

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Trondheim 1980

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Refseth, D. 1980. Atlas of the Coleoptera of Norway. 1. Silphidae, Catopidae, Colonidae, Leptinidae. Insecta Norv. 1, 1-44.

Maps showing the distribution of the species of the families Silphidae, Catopidae, Colonidae, and Leptinidae in Norway are presented. The maps are based on the UTM grid system with modified 50 km squares. For each species supplementary information on the distribution is given.

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INTRODUCTION

Our present knowledge of the geographical distribution of Coleoptera in Norway is primarily based upon Catalogus Coleopterorum Fennoscandiae et Daniae (Lindroth 1960), with later additions and corrections by Strand (1970, 1977). For many purposes these data, although suffering from a lack of detail, are sufficient. But in several cases more exact information on the distributional patterns of the species is needed. Moreover, an ever-increasing amount of records from local surveys constantly requires a more detailed basis for addition of the new finds, which otherwise would be of limited value. Finally, alterations in the systematic arrangement and the nomenclature have made some revisions of the present catalogue desirable.

The present work deals with the group of Coleoptera often referred to as Silphidae (e.g. Lindroth 1960), which actually includes four families: Silphidae, Catopidae, Colonidae and Leptinidae (Silfverberg 1979). The information obtained so far concerning the distribution of the species in Norway has been collected and is plotted on maps. Similar surveys of other groups are in preparation by several authors, and the intention is that these efforts finally will result in a complete Atlas of the Coleoptera of Norway.

MATERIAL AND METHODS

The bulk of information upon which this work is based was collected by Andreas Strand. Most of the records from northern Norway have previously been published by him (Strand 1944). Additional records published before 1977 and most of the data existing in museum collections were gathered in his handwritten catalogue, kindly placed at my disposal by Dr. Astrid Løken, Zoologisk Museum, Bergen. This material has been of great help for the accomplishment of the present survey.

I have been supplied with data and specimens for examination from zoological institutions in Norway, and several private collectors have kindly contributed their unpublished finds. Some in-

formations also date from my own collection and a few other sources, and have previously been published (Refseth 1979).

According to the intentions of The European Invertebrate Survey (Heath 1973) it was decided to present the results on maps with modified 50 km squares which are based on the UTM grid system (Økland 1976). These maps give a fairly good view of the distribution of the species within the country and have already been applied to corresponding surveys (Økland 1976, 1977, Aagaard and Dolmen 1977, Dolmen 1978). However, the value of conventional dot maps with precise indications of localities must not be underestimated. Such maps will still be very useful for certain purposes, especially in studies of local distribution and dispersal.

By the transfer of the basic data to the grid system a few difficulties arose, primarily because the specifications of the localities of some older records were rather inaccurate (e.g. 'Sunnmøre'). In such cases a special symbol is used to indicate the square to which the find most likely is to be assigned. Moreover, according to earlier authors a few records are considered as doubtful,although being clearly labelled. These records are also represented by the special symbol on the maps.

Information on the occurrence of the species in Denmark, Finland and Sweden is drawn from Silfverberg (1979).

GENERAL COMMENTS

A total of 59 species of the families in concern are hitherto recorded from Norway. Compared with the corresponding numbers in the other nordic countries this figure is rather low (Table 1). It is therefore reason to believe that an increased collecting activity will result in the discovery of several additional species. In particular this applies to the members of Catopidae and Colonidae, which often inhabit small rodent burrows or other hidden microhabitats, hence escaping discovery.

As might be expected, most species are recorded from areas in the vicinity of zoological institutions (Fig. 1). This is notably obvious in the south-eastern part of the country, even when con-

Table 1. Numbers of species in each family which are known from Norway, Finland, Denmark, and Sweden, respectively.

	N	F	D	S	Total
Silphidae	17	19	21	24	24
Catopidae	28	32	35	43	48
Colonidae	12	14	11	16	16
Leptinidae	2	-	1	2	2
Total	59	65	68	85	90

sidering the fact that the distribution of several species probably is restricted to this area. Large numbers of species are also recorded within some other squares, especially no. 71 and no. 154 (Fig. 1), due to extensive collecting activity. It is thus important to realize that the maps show where the species have been found so far, and that most species are likely to have a wider distribution than is indicated on the maps.

The systematics of Silphidae and related families have been subject of much discussion. Taxonomical studies of these groups often involve certain difficulties since the knowledge of the distribution of the species and their morphological variations is rather scanty. The systematic arrangement in Lindroth (1960) has been used by coleopterologists for many years, although being out of date in many respects. In the present work the systematics and the nomenclature follow the check list of Silfverberg (1979), which is based upon the system of Crowson. According to this system the group previously being denoted Silphidae now is divided into four families: Silphidae, Catopidae, Colonidae, and Leptinidae. One practical consequence of such alterations in the systematics is that the information needed for the identification of the species has to be gathered from several sources, often with contradictory interpretations. A taxonomical revision including the preparation of up-to-date keys for species identification would certainly be needed, but is beyond the scope of the present work.

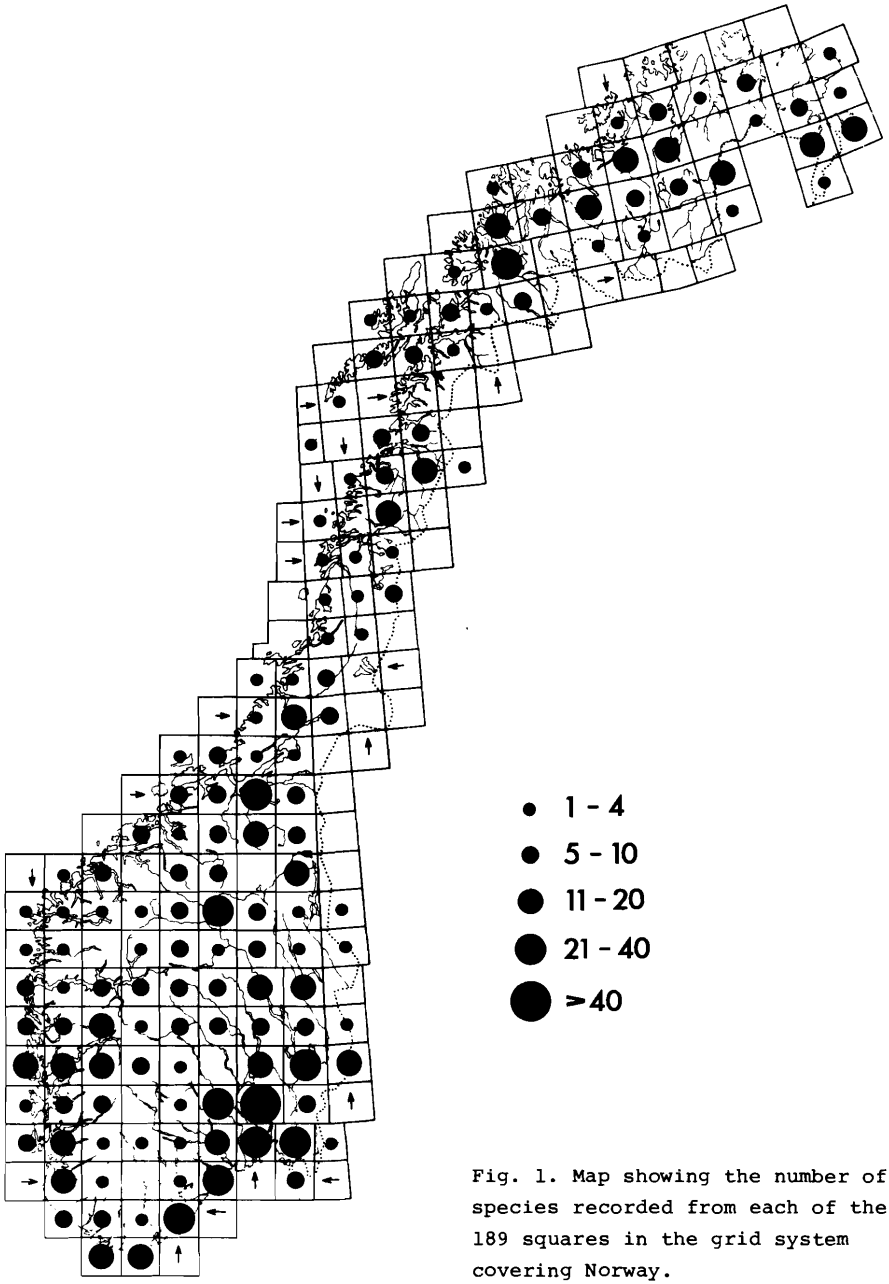

Fig. 1. Map showing the number of species recorded from each of the 189 squares in the grid system covering Norway.

THE DISTRIBUTION OF THE SPECIES

Two symbols are used on the maps. A dot denotes the presence of at least one documented record within the particular square, and a circle denotes doubtful or uncertain records. The general distribution of each species in Norway is described, with comments on particular finds, including the localities of isolated records and records at the border of the distributional areas. District abbreviations follow Strand (1943), with later modifications by Løken (1973). For records of special interest published after 1977 or otherwise representing new information, references to sources are given. When referring to museum collections the following abbreviations are used: ZMB = Zoologisk Museum, Bergen, ZMO = Zoologisk Museum, Oslo, VMT = Det Kgl. Norske Videnskabers Selskab, Museet, Trondheim. The presence of a species in other nordic countries is indicated by capitals: D = Denmark, F = Finland, S = Sweden. For convenience the species within each genus are put in alphabetical order.

S I L P H I D A E

Nicrophorus humator (Gleditsch). Map 1.

Mainly restricted to southern coastal areas. Northernmost: HOy: Herdla (ZMB). D, F, S.

Nicrophorus investigator Zetterstedt. Map 2.

Fairly common in the southern part of the country, scattered in the provinces of Nordland and Troms. Northernmost: TRi: Alteidet. D, F, S.

Nicrophorus vespillo L. Map 3.

Common in the south-eastern part of the country and in south-western coastal areas. Further north one record at HOi: Granvin and one at MRy: Sunnmøre (Strøm), the latter without precise indication of locality. One record from STi: Trondheim is doubtful, according to Lysholm. D, F, S.

Nicrophorus vespilloides Herbst. Map 4.

Widely distributed and obviously common throughout the country. D, F, S.

Necrodes littoralis (L.). Map 5.

Mainly found in south-eastern areas and at several localities in Hordaland. Also at On: Lom, MRy: Sunnmøre, STi: Trondheim, and STy: Agdenes (Refseth 1979). D, F, S.

Thanatophilus dispar (Herbst). Map 6.

Several records, but very scattered: Ry: Reve (ZMO, F. Jensen), HEn: Engeren and Femundsenden, On: Dovre (ZMO, Ullmann), STi: Trondheim (VMT), STy: Ørlandet, Fi: Bossekop and Karasjok, Fn: Lakselv and Skoganvarre. D, F, S.

Thanatophilus lapponicus (Herbst). Map 7.

Common in the northern part of the country, in the south mainly restricted to central mountain areas. F, S.

Thanatophilus rugosus (L.). Map 8.

Fairly common south of Nsy: Bodø and Nnv: Værøy. Moreover two records from Fø: Elvenes and Fn: Vadsø. D, F, S.

Thanatophilus sinuatus (Fabricius). Map 9.

Restricted to the south-eastern part of the country. Separate records from On: Fokstua, and HEn: Åmot. One record from STi: Trondheim (VMT, Storm) is doubtful, according to Lysholm. D, F, S.

Oiceoptoma thoracica (L.). Map 10.

Common from Nsy: Bodø and southwards, although mainly in coastal areas. Several records also from TRi: Målselv and Skjåvikør, and TRy: Senja. D, F, S.

Aclypea (Blitophaga) opaca (L.). Map 11.

Common throughout the country, although few records from the province of Finnmark. D, F, S.

Dendroxena (Xylodrepa) quadrimaculata (Scopoli). Map 12.

Only four scattered records: Ø: Spydeberg, AAy: Grimstad, VAy: Kristiansand, HOy: Bergen (ZMB, L. Greve). D, F, S.

Silpha carinata Herbst. Map 13.

Rare, only one record from Ø: Fredrikstad. D, F, S.

Silpha obscura L. Map 14.

Rare, only two records: Ø: Gressvik, AK: Oslo. D, F, S.

Silpha tristis Illiger. Map 15.

A southern species with present limits of distribution at Ry: Varhaug and AK: Solberg. D, F, S.

Phosphuga atrata (L.). Map 16.

Widely distributed in southern Norway, scattered in northern areas. Northernmost: Fi: Alta. D, F, S.

Pteroloma forsstroemi (Gyllenhal). Map 17.

Scattered throughout the country, although mainly in northern and central southern areas. F, S.

C A T O P I D A E

Ptomaphagus medius Rey. Map 18.

Only three records: AK: Gaustad and Bygdøy, VE: Tjøme. D, S.

Ptomaphagus subvillosus (Goeze). Map 19.

Only two records: Ø: Halden and HEs: Kongsvinger. D, F, S.

Ptomaphagus varicornis (Rosenhauer). Map 20.

Very local, a few records at the inner part of Oslofjorden. D, S.

Nemadus colonoides (Kraatz). Map 21.

Found at a few localities in the south-eastern part of the country: Ø: Halden, AK: Nes, Bålerud, VE: Lindum, Fritsøhus, Sandar. D, F, S.

Nargus wilkini (Spence). Map 22.

A few scattered records from the southern part of the country: AAy: Grimstad, Tromøy (ZMB), VAy: Lyngdal, HOi: Rosendal (ZMB), Tyssedal. D, S.

Choleva angustata (Fabricius). Map 23.

A few records only from the south-eastern part of the country: Ø: Knardal, AK: Brønnøy, Røa, Bv: Eiker (T. Kvamme), VE: Tjøme, Sandar. D, F, S.

Choleva elongata (Paykull). Map 24.

Recorded from three localities: AK: Oslo, Bygdøy, VE: Tjøme. D, F, S.

Choleva fagniezi Jeannel. Map 25.

A few scattered finds in southern and central Norway. Recorded for the first time in this country in 1968 at HOy: Bergen and HOi: Lio, Kvinnherad (Fjellberg 1970) Later records from Os: Vassfaret, STi: Brekken (Refseth 1979), NTi: Stod (Refseth 1979). D, F, S.

Choleva septentrionis Jeannel. Map 26.

Fairly common in northern areas and central parts of southern Norway. S.

Choleva sturmi Brisout de Barneville. Map 27.

Apparently rare, only one record: HOj: Måbødalen. F. S.

Dreposcia brevipalpis ssp. colleti (Munster). Map 28.

A northern species (subspecies) found at several localities in the province of Finnmark. F.

Sciodrepoides fumatus (Spence). Map 29.

Recorded from several localities in the southern part of the country. Northernmost: On: Vågå (ZMO, Ullmann). D, F, S.

Sciodrepoides watsoni (Spence). Map 30.

Common throughout southern Norway, scattered in northern areas. Northernmost: TRi: Sappen. D, F, S.

Catops alpinus Gyllenhal. Map 31.

Primarily a northern and alpine species, common in Troms and Finnmark and in central southern areas. At the west coast only one record: SFy: Steine at Gulen. F, S.

Catops borealis Krogerus. Map 32.

A rare species with an apparently bicentric distribution. Only five records: AAy: Risør, Ri: Hjelmeland (ZMB), TRi: Bjørkeng, Lyngen, Kåfjord. F, S.

Catops coracinus Kellner. Map 33.

Fairly common in most parts of the country. D, F, S.

Catops fuliginosus Erichson. Map 34.

Mainly found in southern coastal areas. Three additional records from the province of Nordland: Nsy: Glomen, Nnv: Vedøy, Hernyken. D, F, S.

Catops fuscus (Panzer). Map 35.

Scattered in southern and central Norway, mainly in coastal areas. Northernmost: TRi: Trondenes. D, F, S.

Catops longulus Kellner. Map 36.

A few very scattered records. Northernmost: TRi: Bilto. F, S.

Catops luteipes Thomson. Map 37.

A northern species mainly found in the province of Finnmark. Also recorded from TRi: Målsnes and Nsi: Røssvatn. F, S.

Catops morio (Fabricius). Map 38.

Apparently common throughout the country. D, F, S.

Catops nigricans (Spence). Map 39.

Fairly common in southern Norway, north to NTi: Stod (Refseth 1979). Moreover two records from the province of Nordland: Nsy: Rønvik, Nnv: Lødingen. D, F, S.

Catops nigriclavis Gerhardt (dorni Reitter). Map 40.

Apparently restricted to the south-eastern part of the country, but locally fairly common. D, F, S.

Catops nigrita Erichson. Map 41.

Widely distributed and obviously common throughout the country. D, F, S.

Catops picipes (Fabricius). Map 42.

Only recorded from southern coastal areas. Northernmost: AK: Asker. D, S.

Catops subfuscus Kellner. Map 43.

A few scattered records in the south-eastern part of the country. Northernmost: HEs: Elverum. D, F, S.

Catops tristis (Panzer). Map 44.

Common in most parts of the country, exept northern areas. A single record at Fv: Hammerfest, but locally common in eastern parts of Finnmark. D, F, S.

Catops westi Krogerus. Map 45.

Found at a few south-eastern localities: Ø: Halden, AK: Bygdøy, Røa, Ullern; Bø: Lier, VE: Sandefjord. D, F, S.

C O L O N I D A E

Colon angulare Erichson. Map 46.

Recorded from VE: Tjøme and a few localities near Oslo. D, F, S.

Colon appendiculatum (Sahlberg). Map 47.

Fairly common in northern and scattered in southern areas. Separate records at AK: Bygdøy, Røa, Brønnøy and Ry: Hommersåk. D, F, S.

Colon arcticum Munster. Map 48.

Scattered in northern Norway, two records from southern elevated areas: STi: Røros, On: Vålåsjø. F, S.

Colon bidentatum (Sahlberg). Map 49.

Fairly common in northern Norway, from southern areas only a few records: HEs: Mårud, On: Vågå, Dovre, Vålåsjø, STi: Røros. D, F, S.

Colon brundini Palm. Map 50.

Rare. Only one record at TRi: Framnes in Målselv. S.

Colon brunneum (Latreille). Map 51.

Found at a few localities in south-eastern Norway. Northernmost: On: Dovre. D, F, S.

Colon delarouzei Tournier. Map 52.

Only two records: AK: Røa, On: Vågå. S.

Colon dentipes (Sahlberg). Map 53.

A few scattered records from southern Norway, and one from the province of Finnmark: Ø: Halden, AK: several localities near Oslo, TEy: Skåtøy, On: Dovre, NTi: Steinkjer, Fø: Jarfjord. D, F, S.

Colon latum Kraatz. Map 54.

Several scattered records throughout the country. Northernmost: Fø: Svanvik. D, F, S.

Colon rufescens Kraatz. Map 55.

Rare, recorded from AK: Brønnøy and Sandvika, only. D, F, S.

Colon serripes (Sahlberg). Map 56.

Several records from northern areas and eastern and central parts of south Norway. D, F, S.

Colon viennense Herbst. Map 57.

Scattered in southern areas, north to NTi: Grong. D, F, S.

LEPTINIDAE

Leptinus testaceus Müller. Map 58.

A few scattered records from the south-western part of the country: AAy: Grimstad, His, VAy: Andøy, Kvinesdal, Ry: Skjold, HOy: Stend. D, S.

Platypsyllus castoris Ritsema. Map 59.

A few records from the provinces of Telemark and Aust-Agder, the main distribution area in Norway of its host, the beaver (Castor fiber L.). S.

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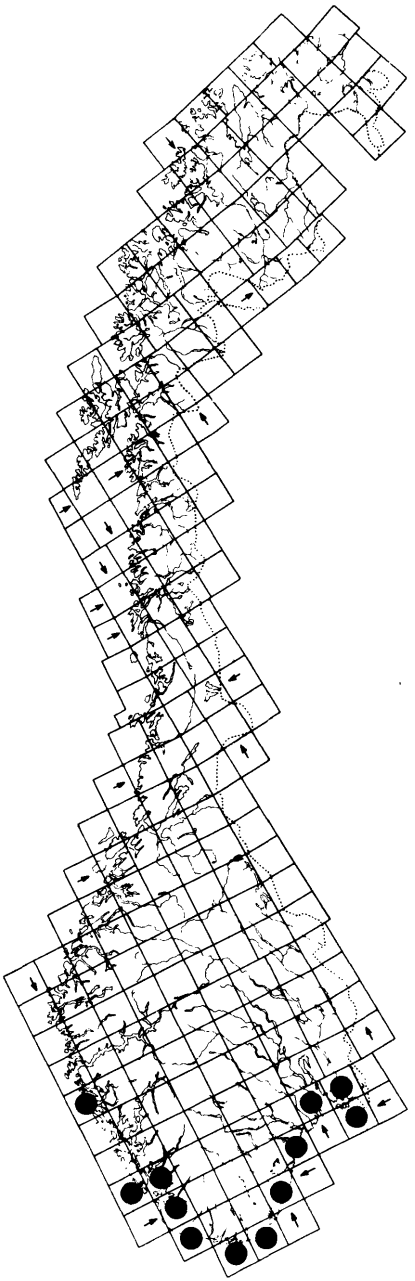
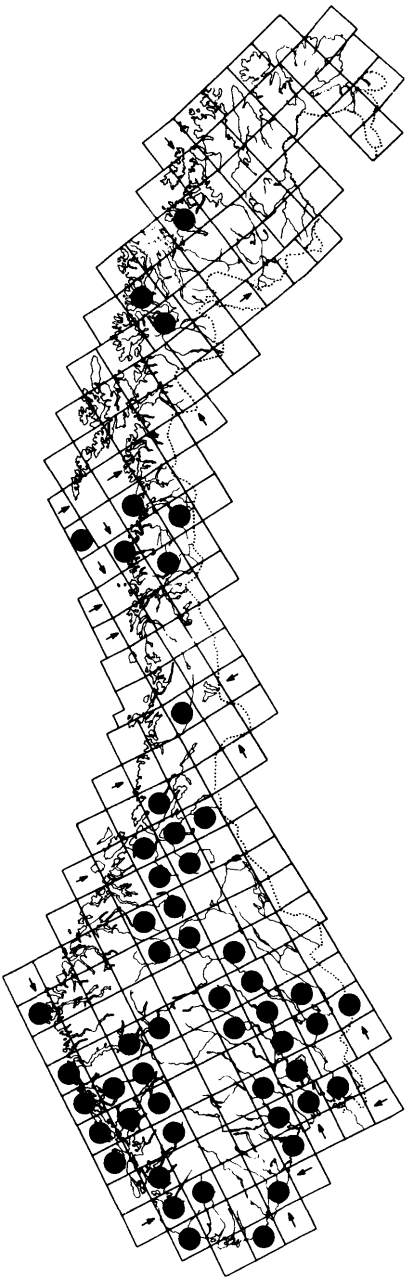


1. Nicrophorus humator



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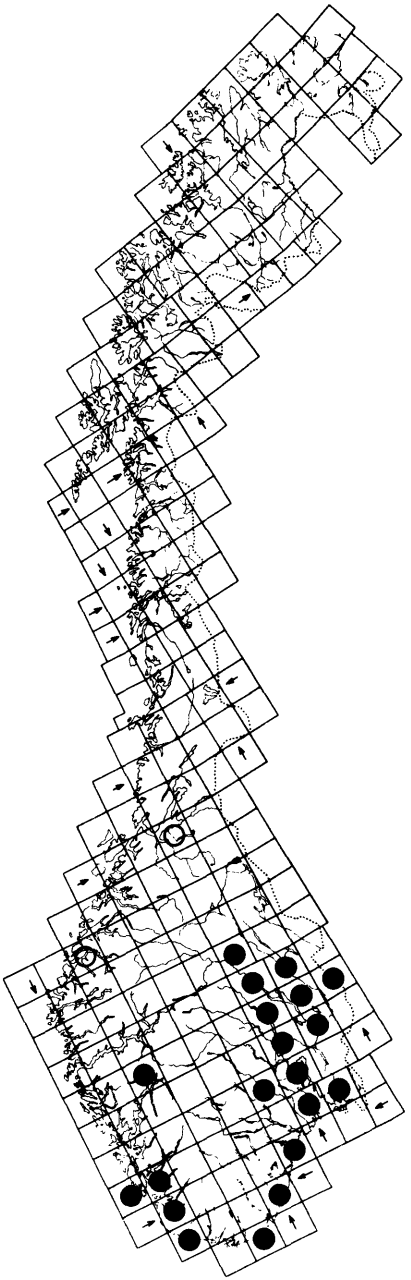

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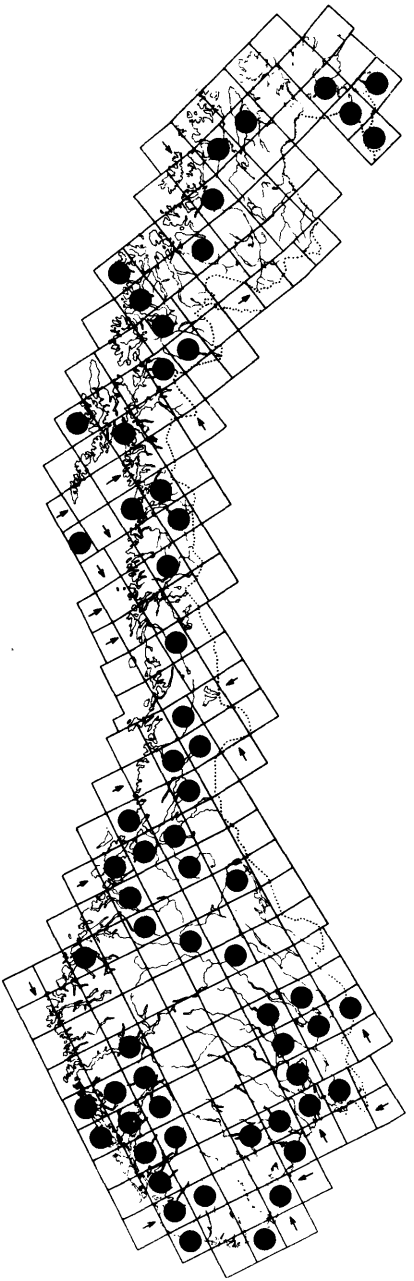

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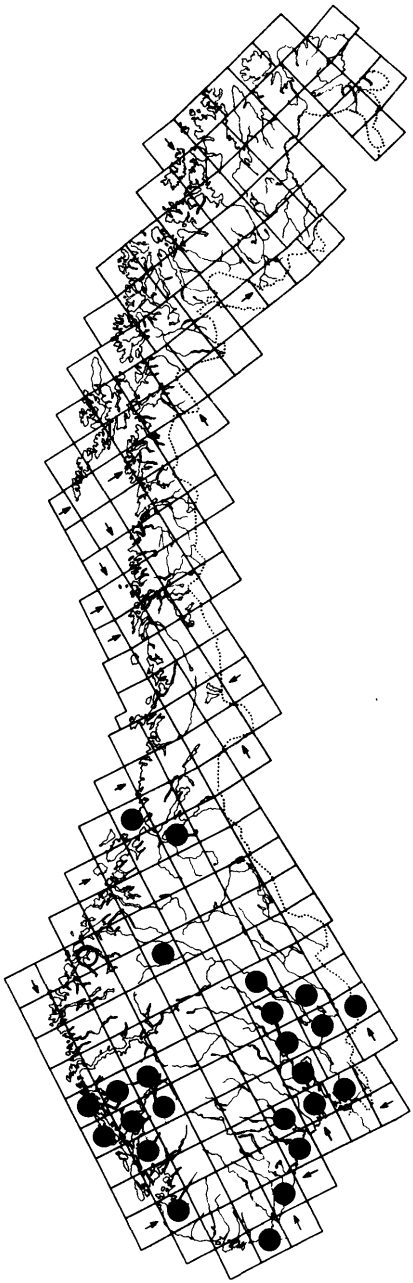

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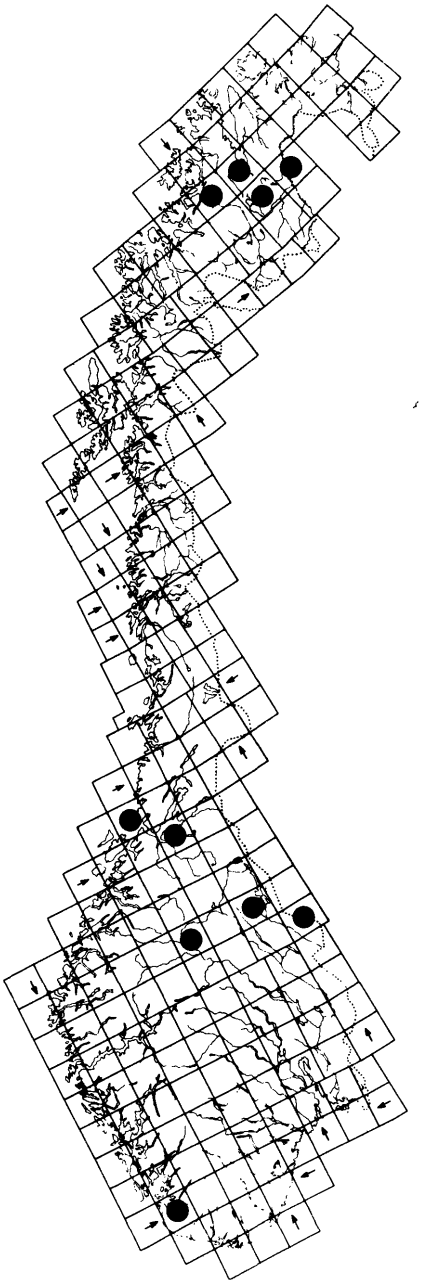
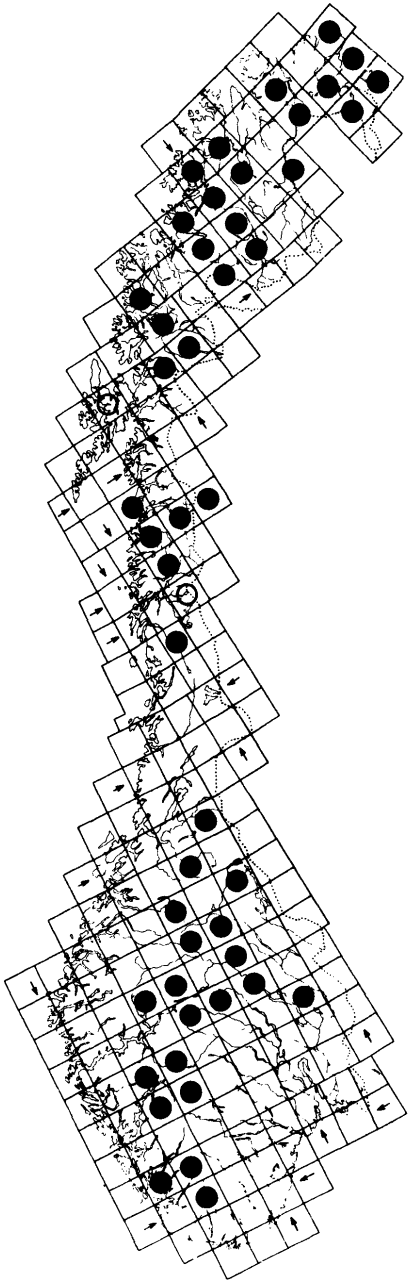
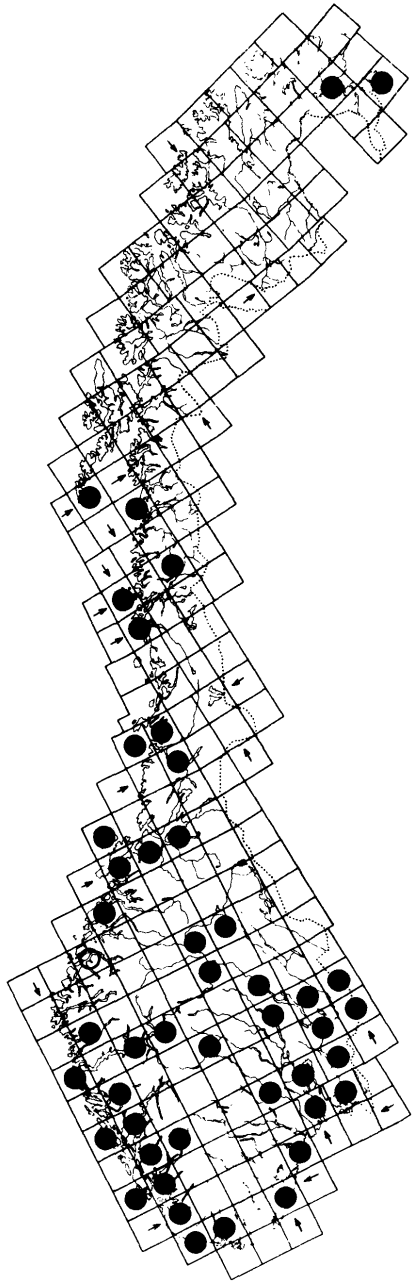


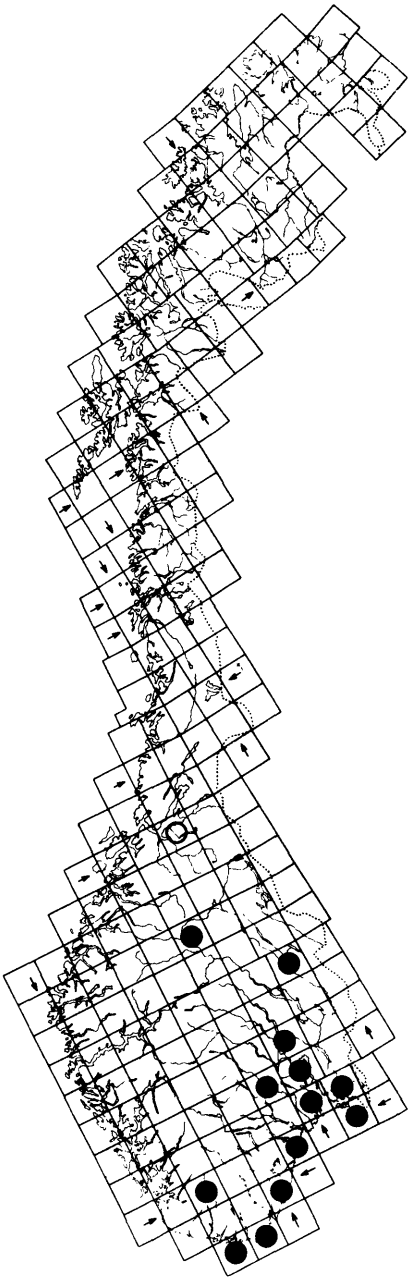
6. Thanatophilus dispar



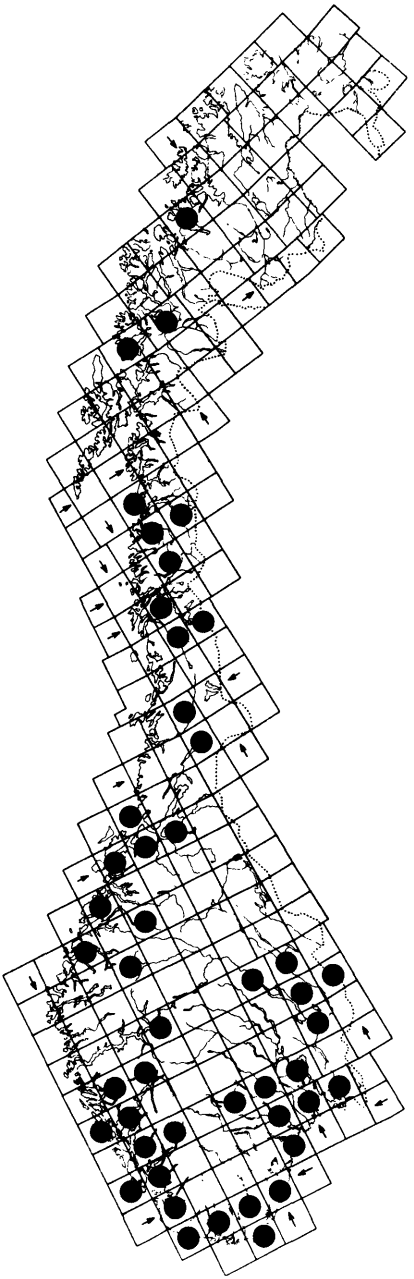
7. Thanatophilus lapponicus



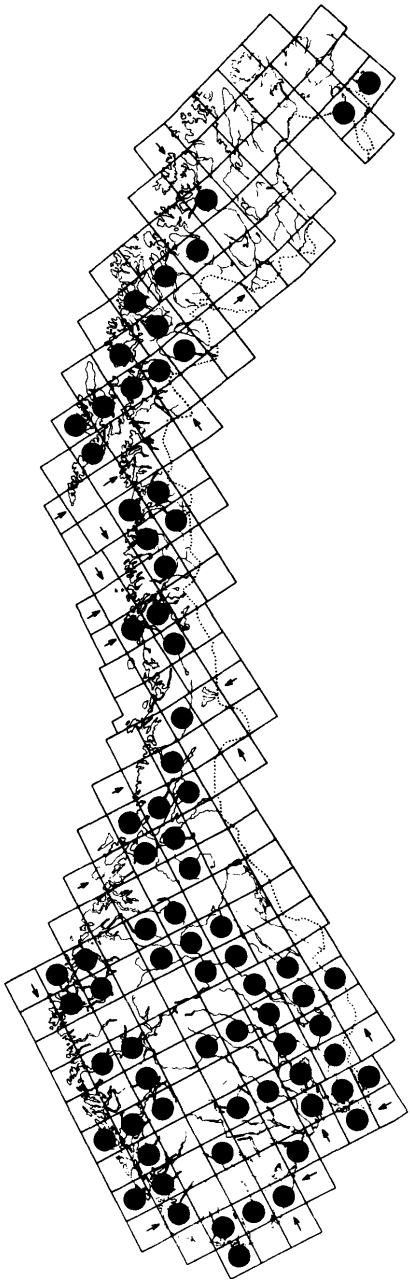
8. Thanatophilus rugosus



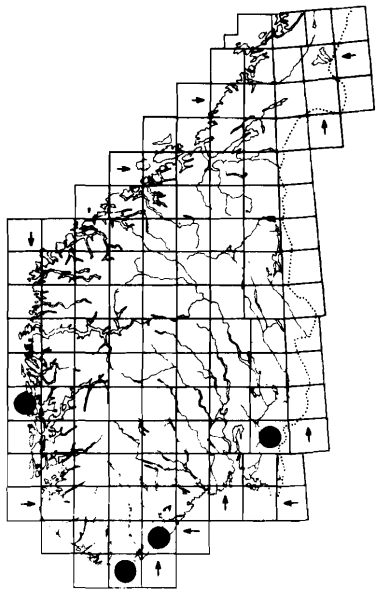
9. Thanatophilus sinuatus



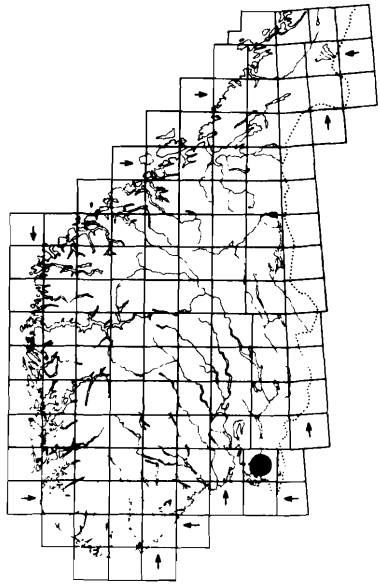
10. Oiceoptoma thoracica



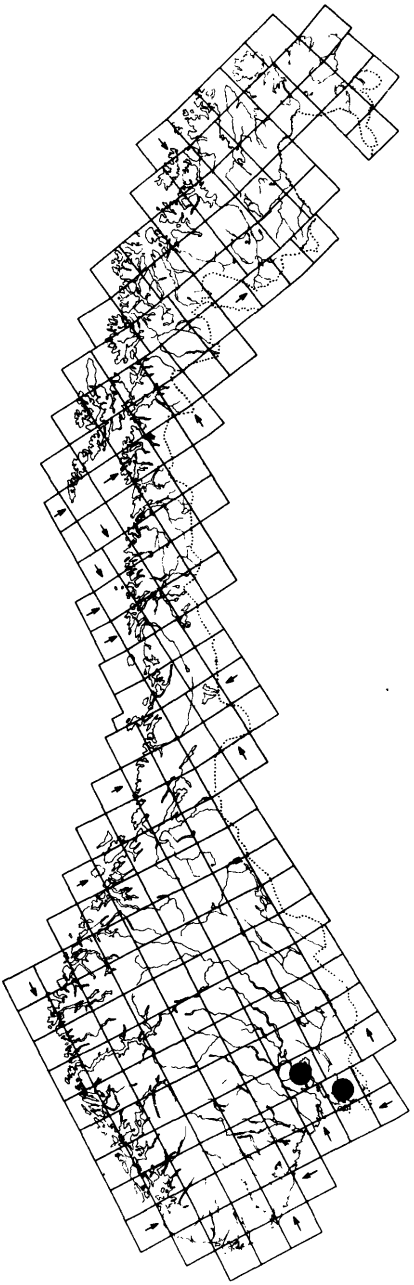
11. Aclypea opaca



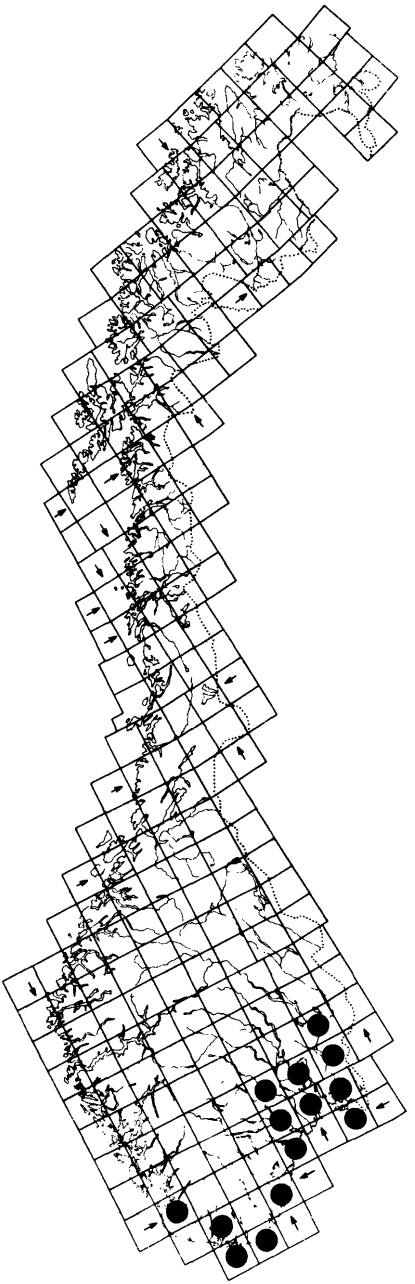
12. Dendroxena quadrimaculata



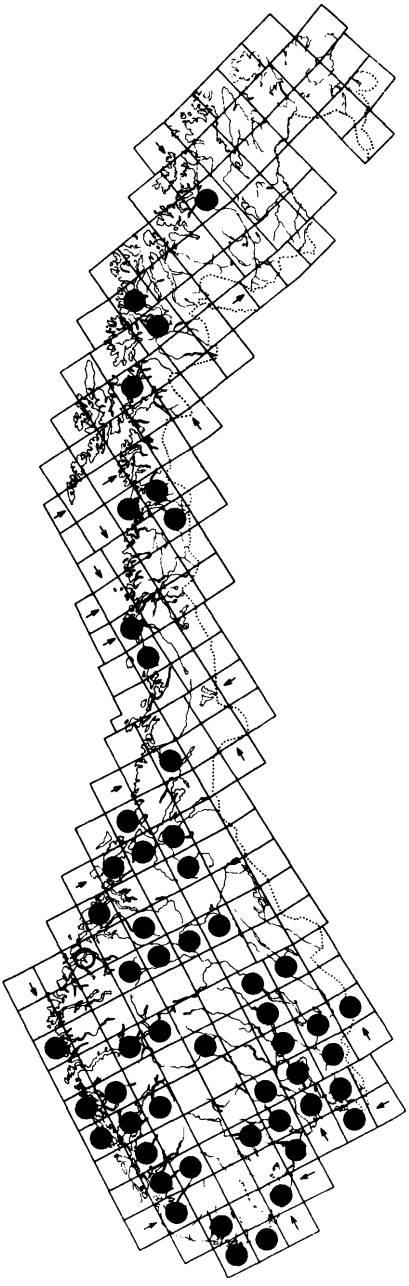
13. Silpha carinata



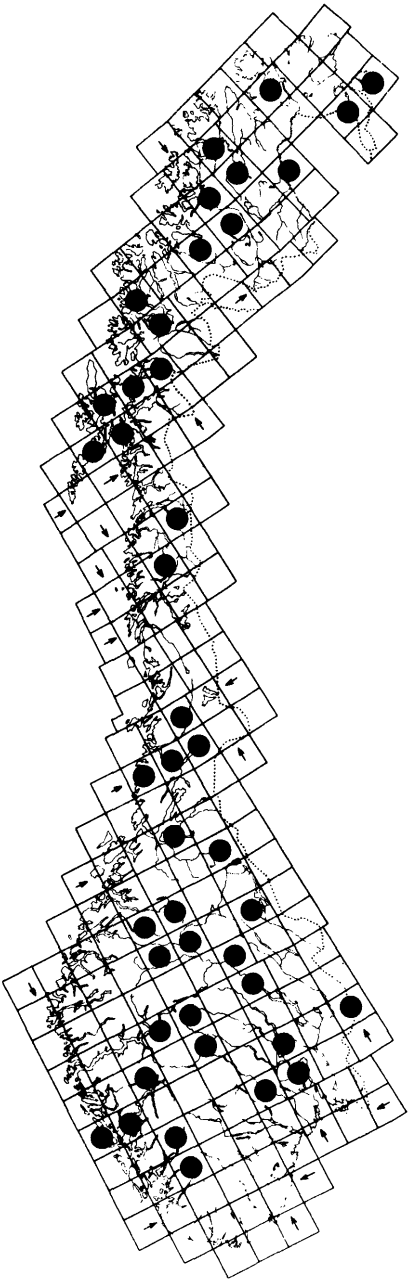
14. Silpha obscura



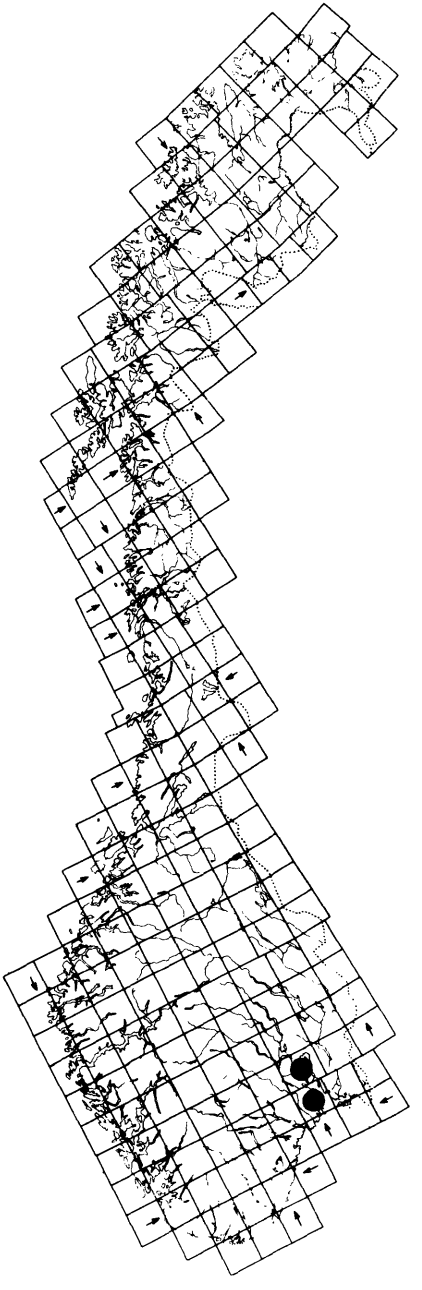
15. Silpha tristis



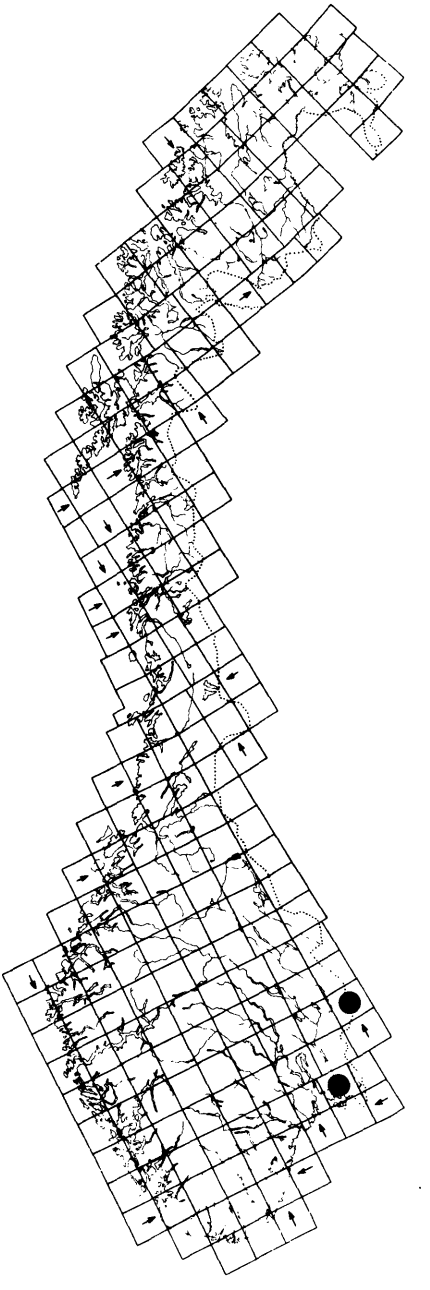
16. Phosphuga atrata



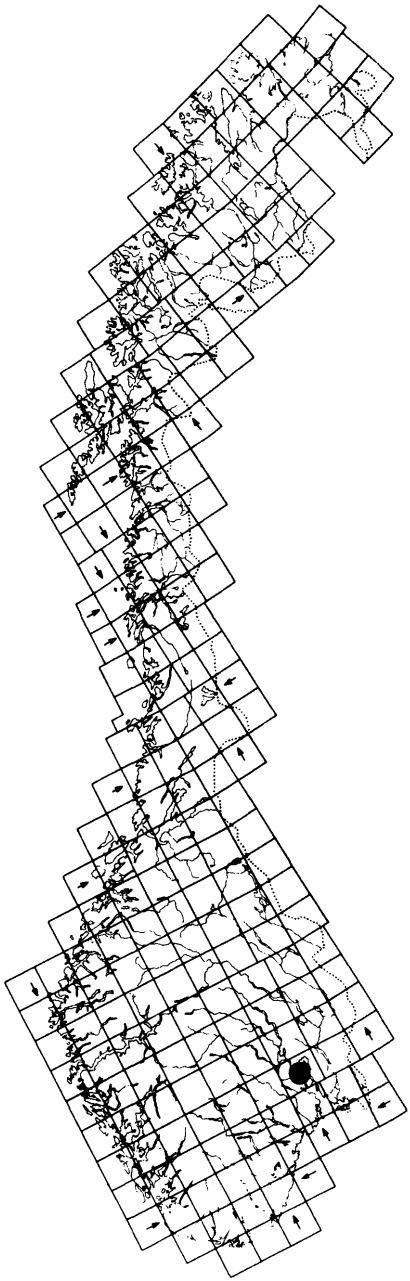
17. Pteroloma forsstroemi



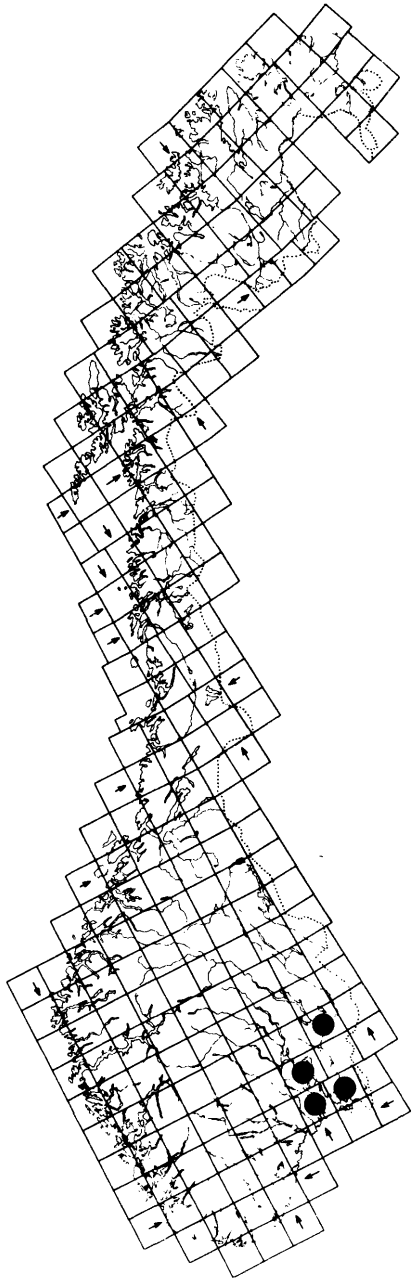
18. Ptomaphagus medius



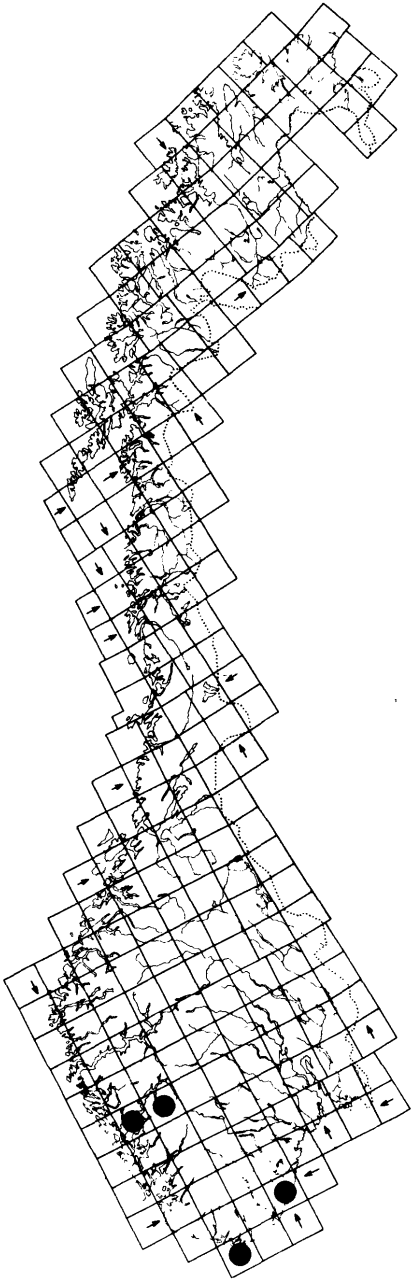
19. Ptomaphagus subvillosus



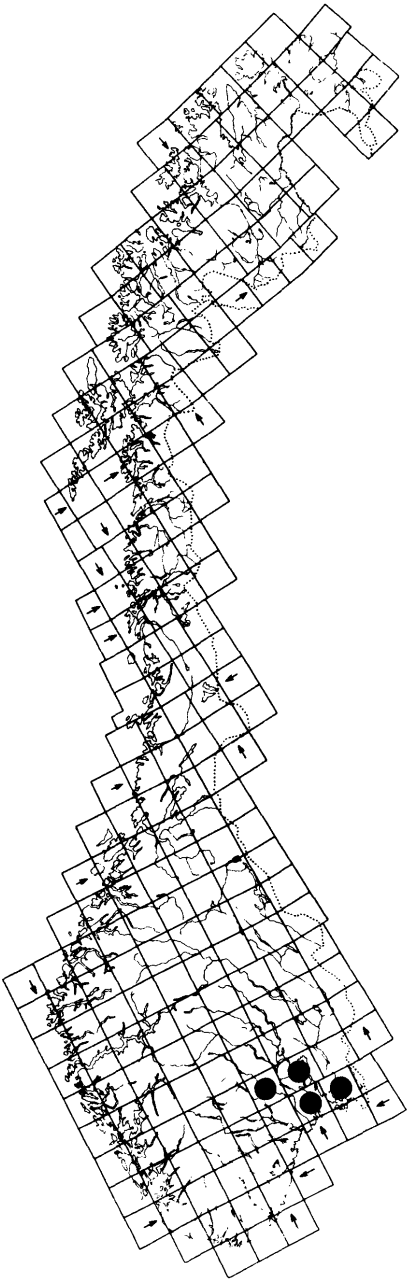
20. Ptomaphagus varicornis



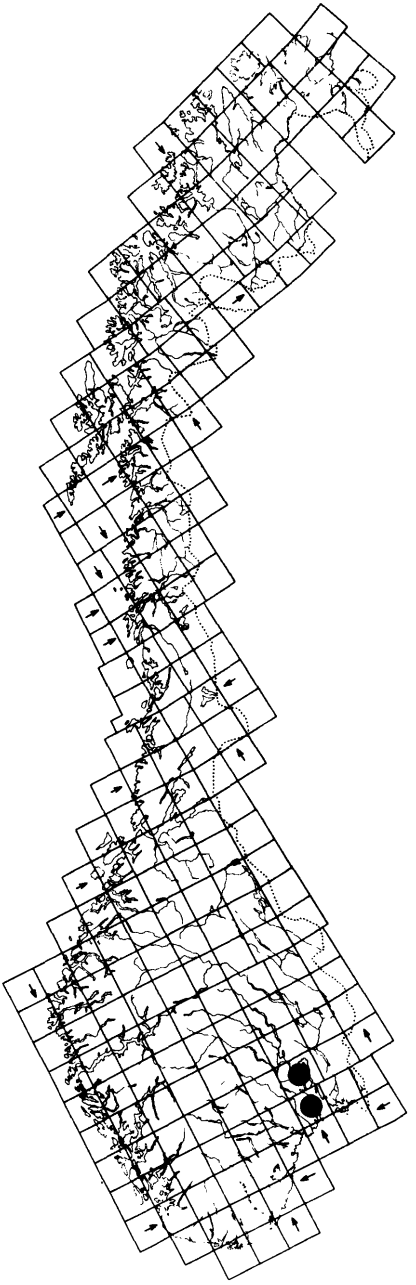
21. Nemadus colonoides



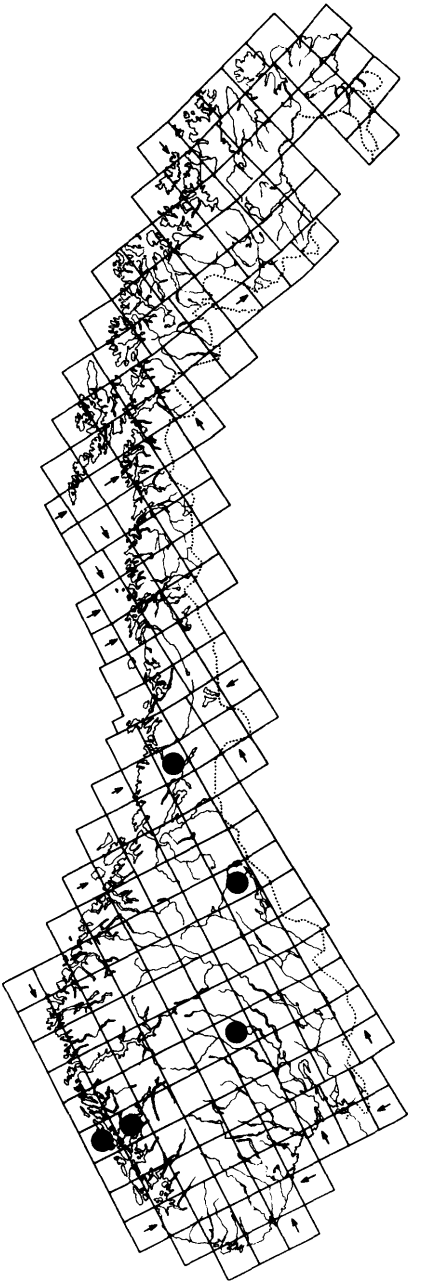
22. Nargus wilkini



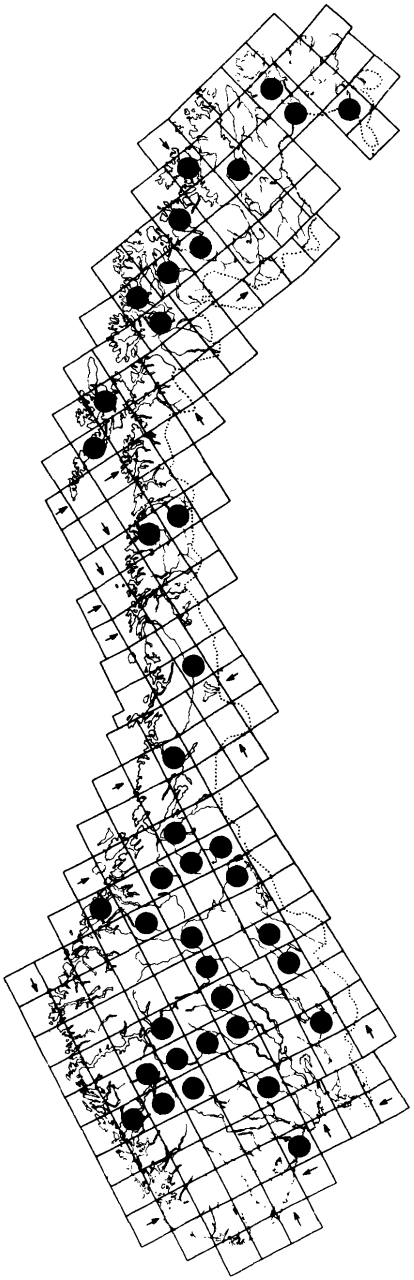
23. Choleva angustata



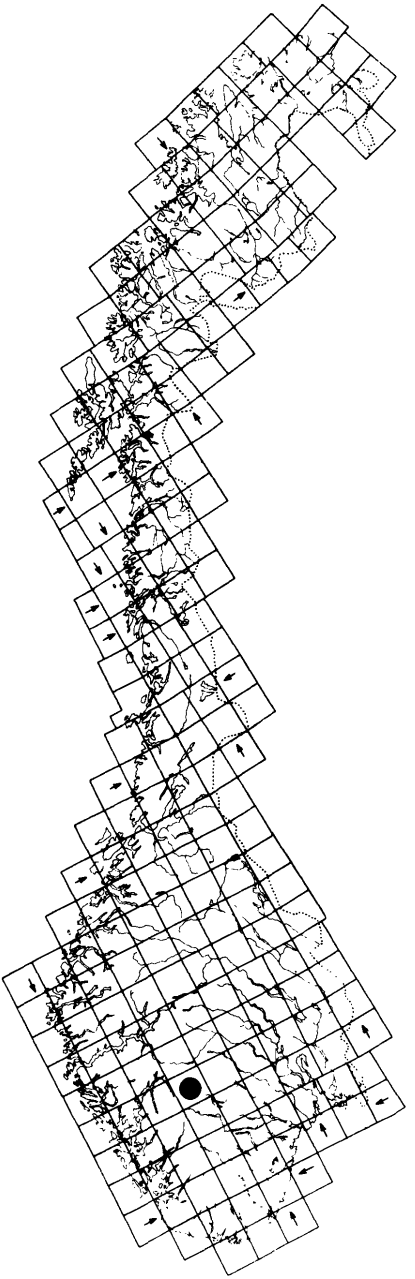
24. Choleva elongata



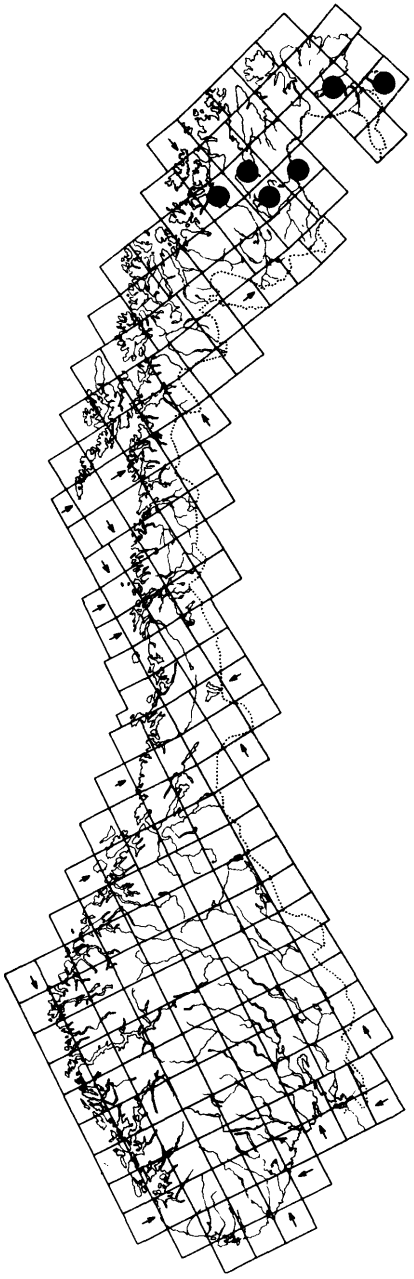
25. Choleva fagniezi



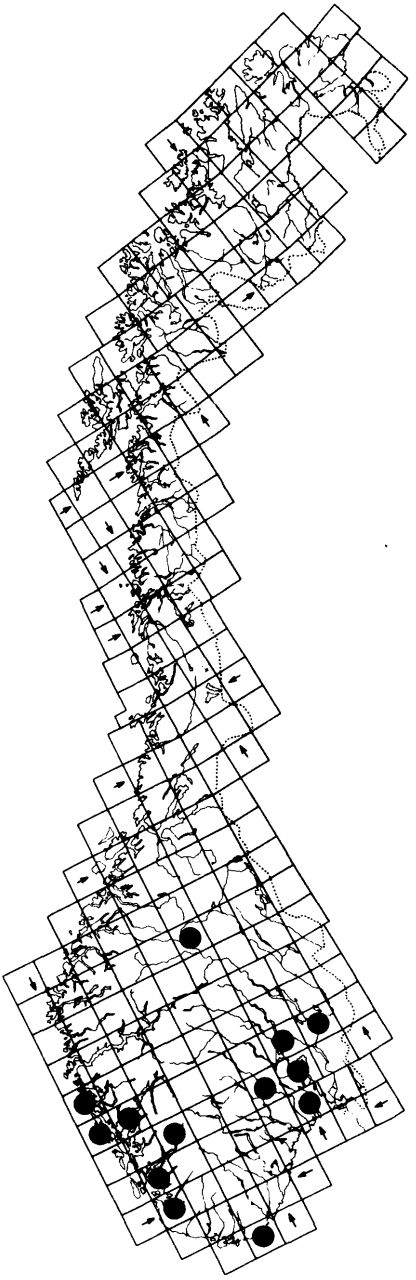
26. Choleva septentrionis



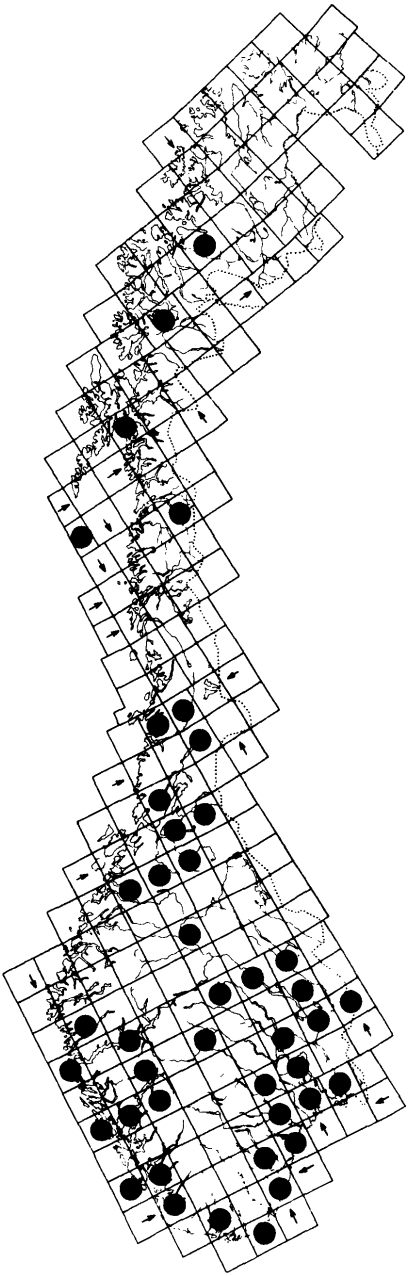
27. Choleva sturmi



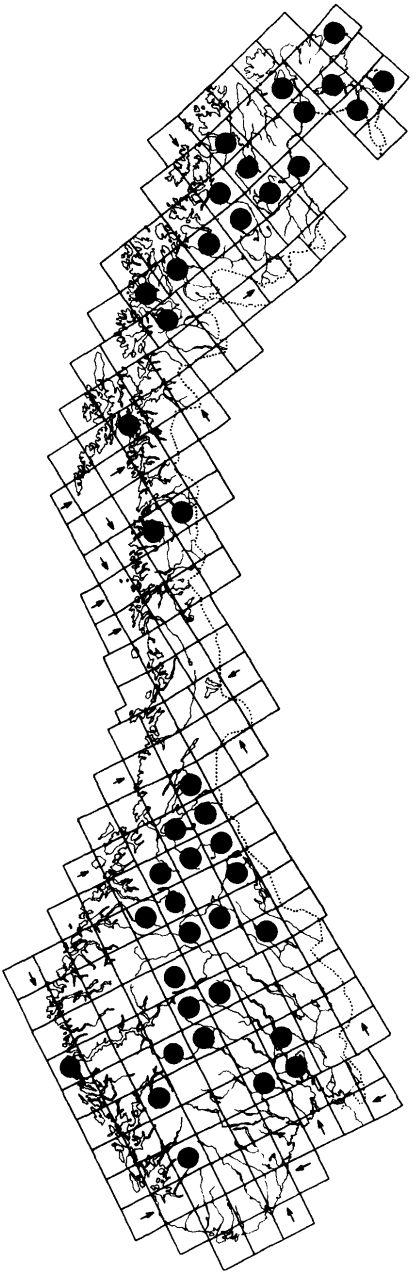
28. Dreposcia brevipalpis colleti



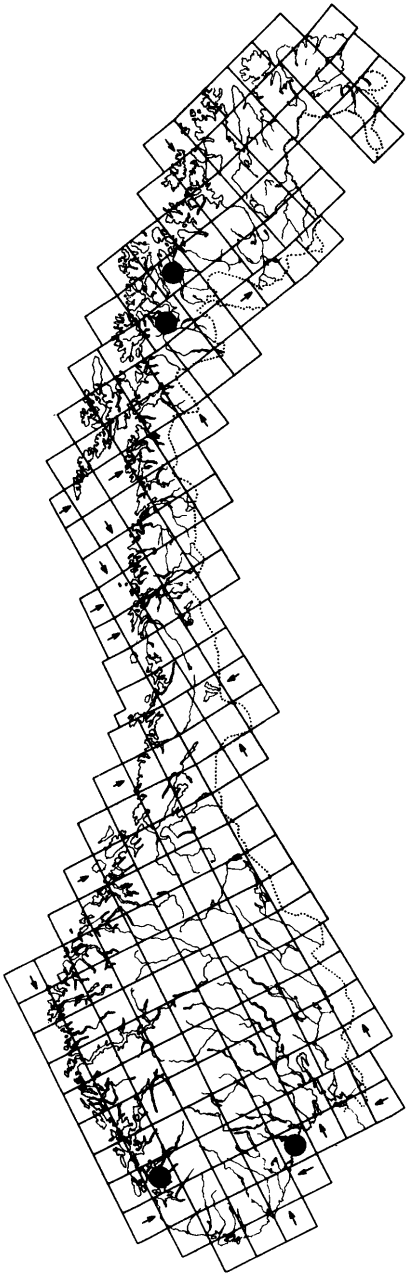
29. Sciodrepoides fumatus



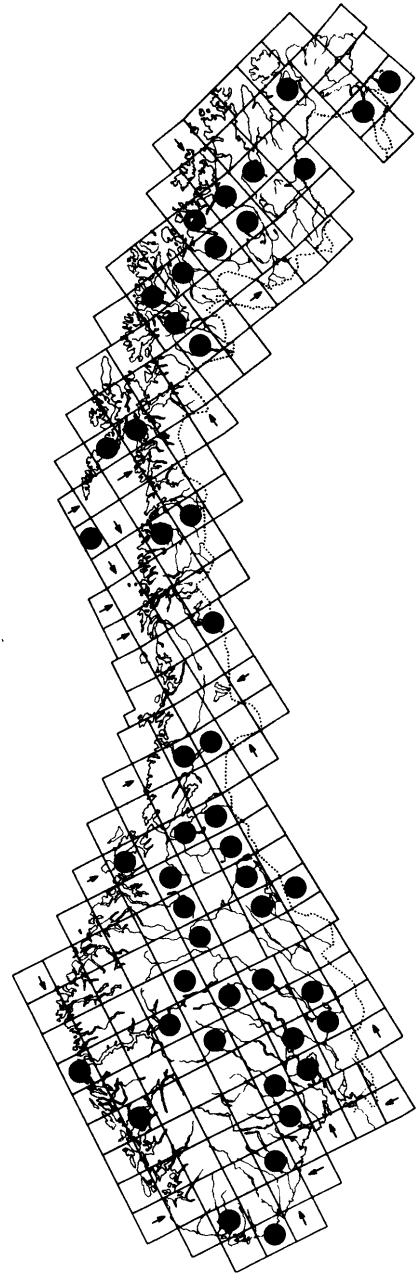
30. Sciodrepoides watsoni



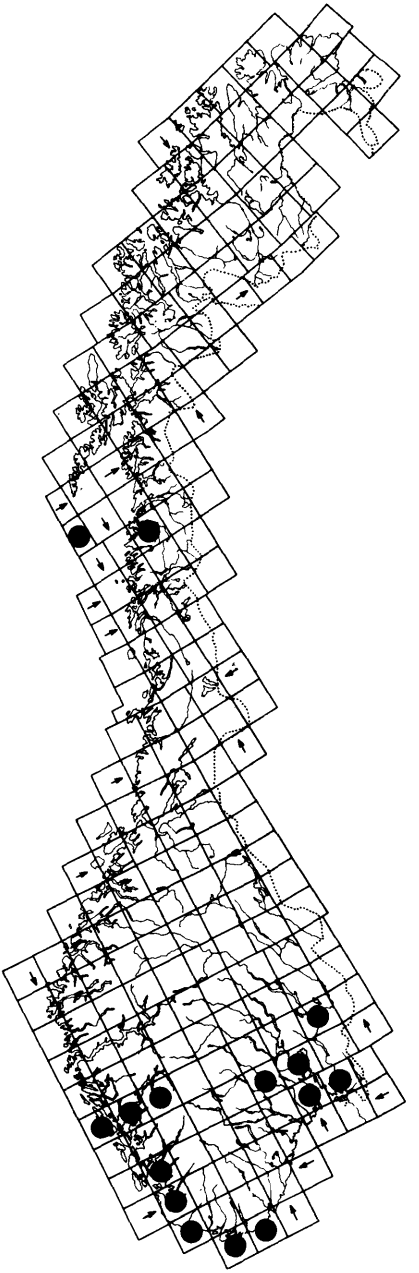
31. Catops alpinus



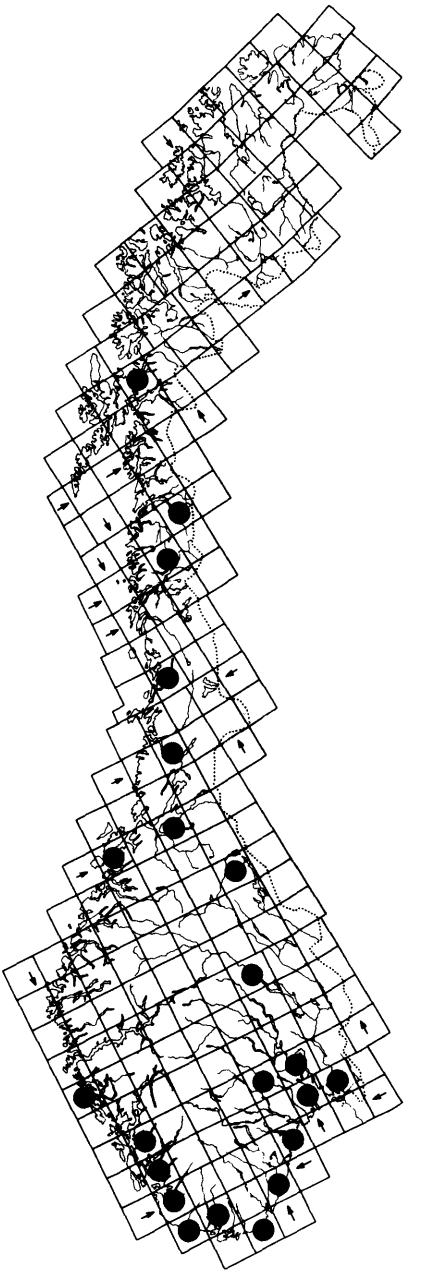
32. Catops borealis



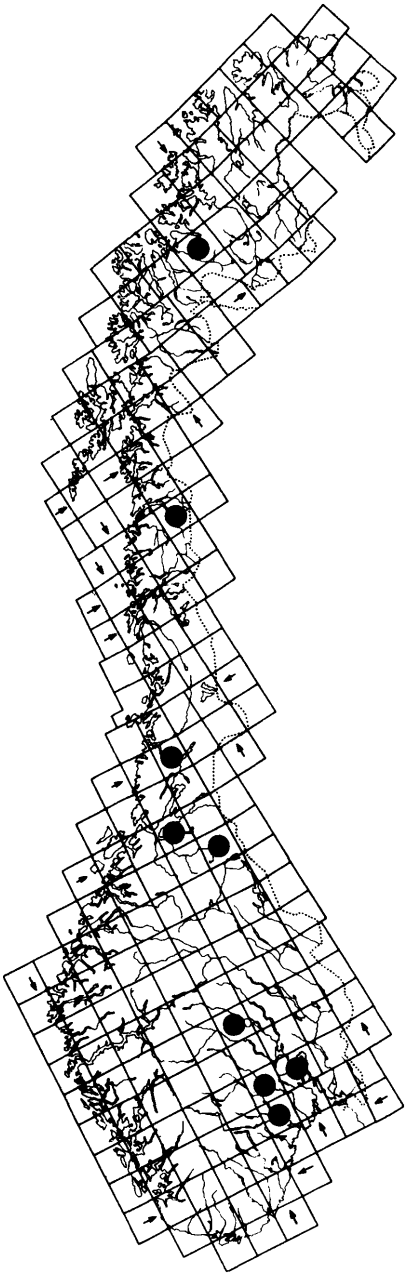
33. Catops coracinus



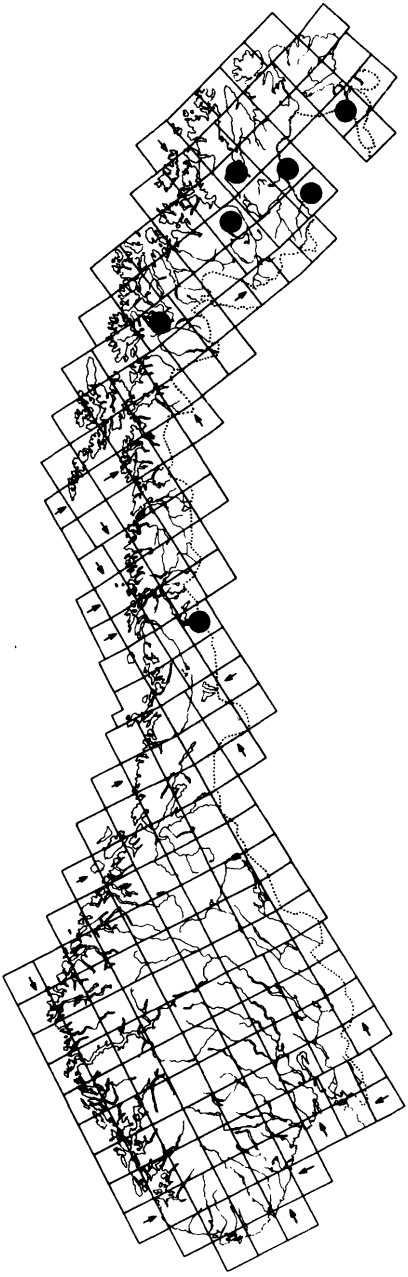
34. Catops fuliginosus



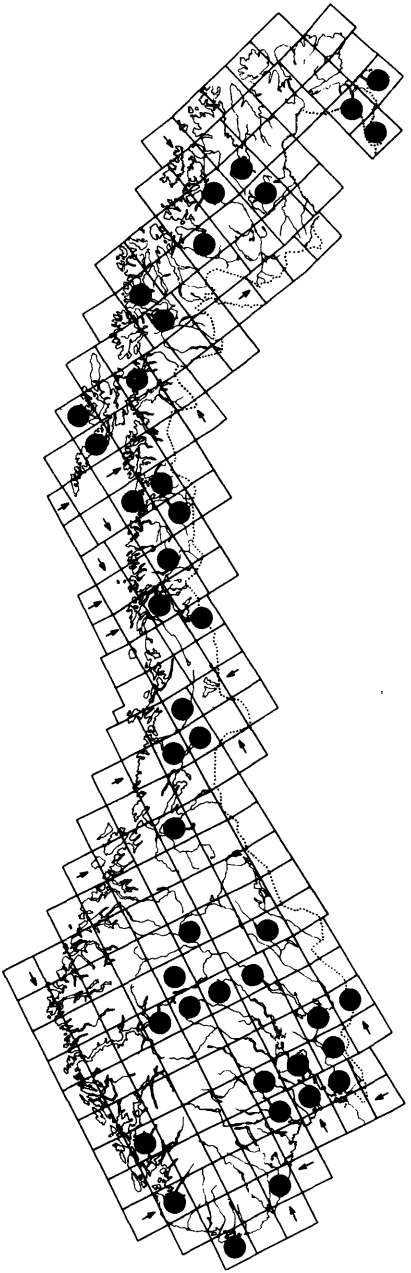
35. Catops fuscus



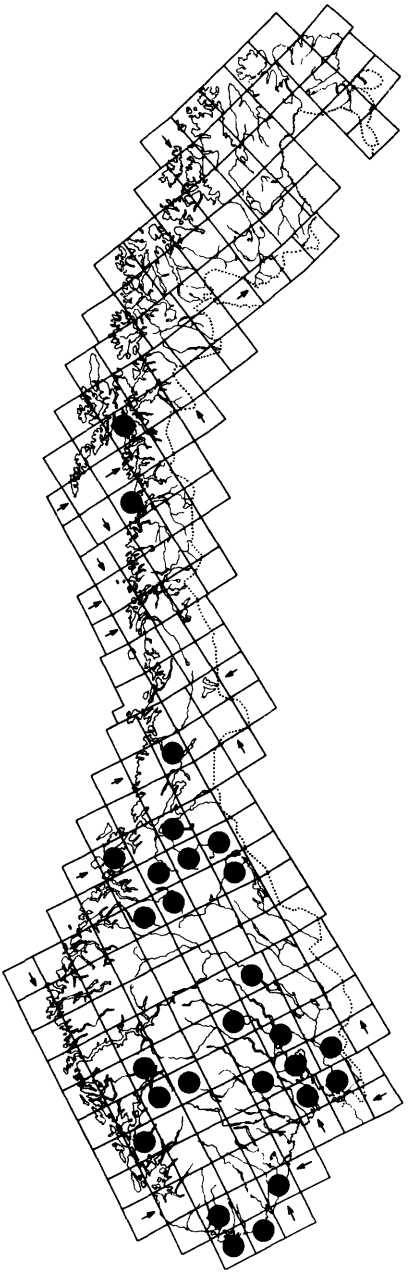
36. Catops longulus



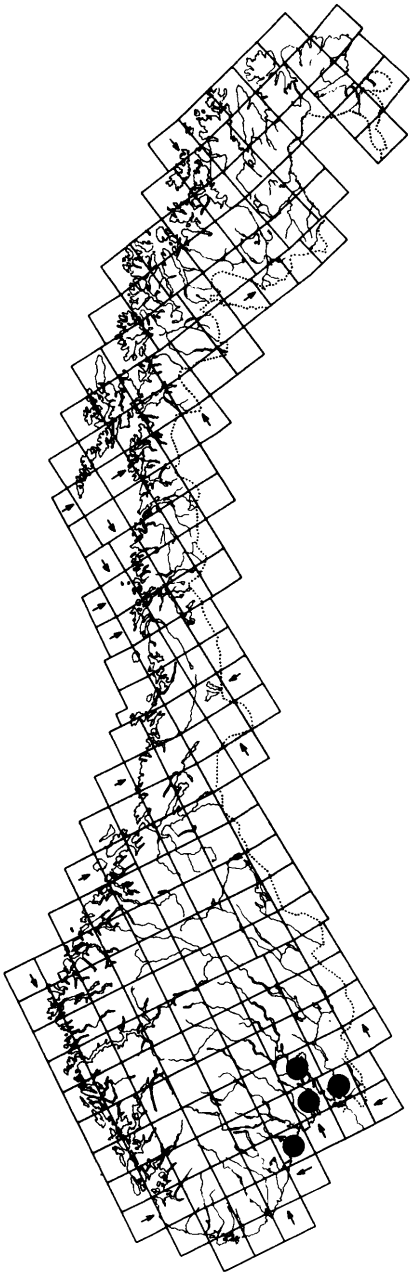
37. Catops luteipes



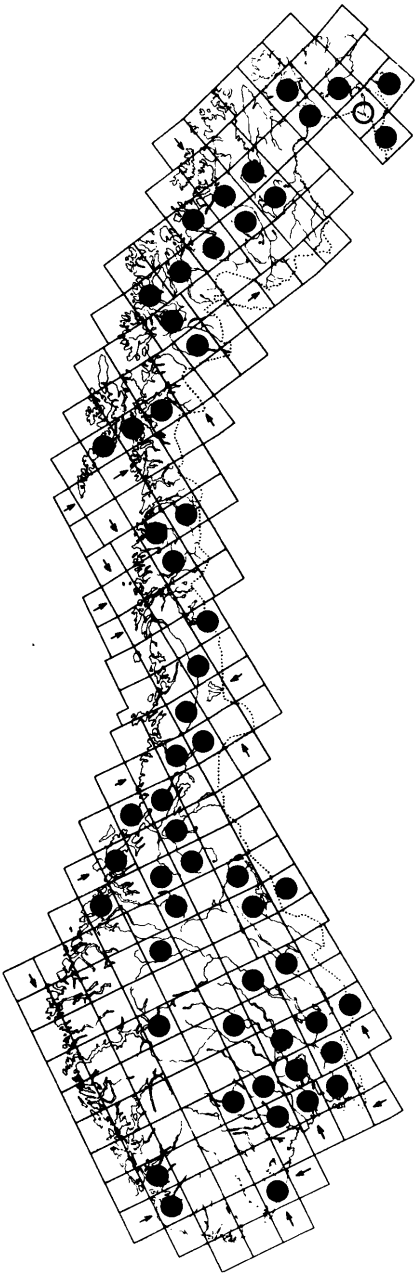
38. Catops morio



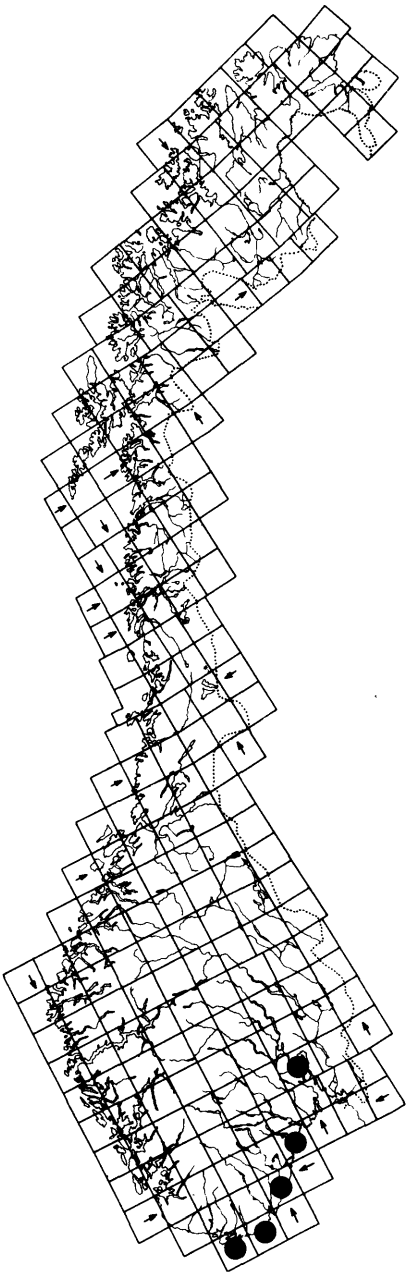
39. Catops nigricans



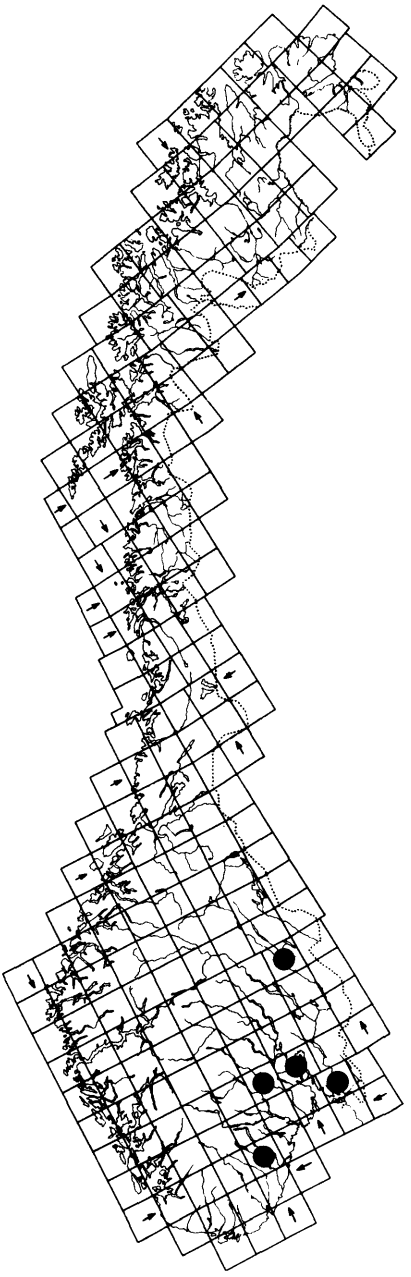
40. Catops nigriclavis



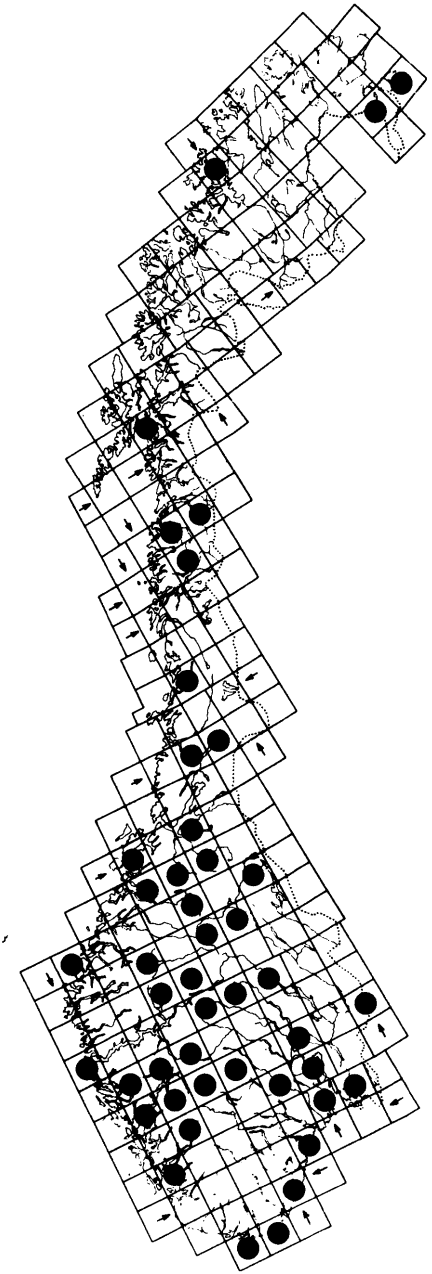
41. Catops nigrita



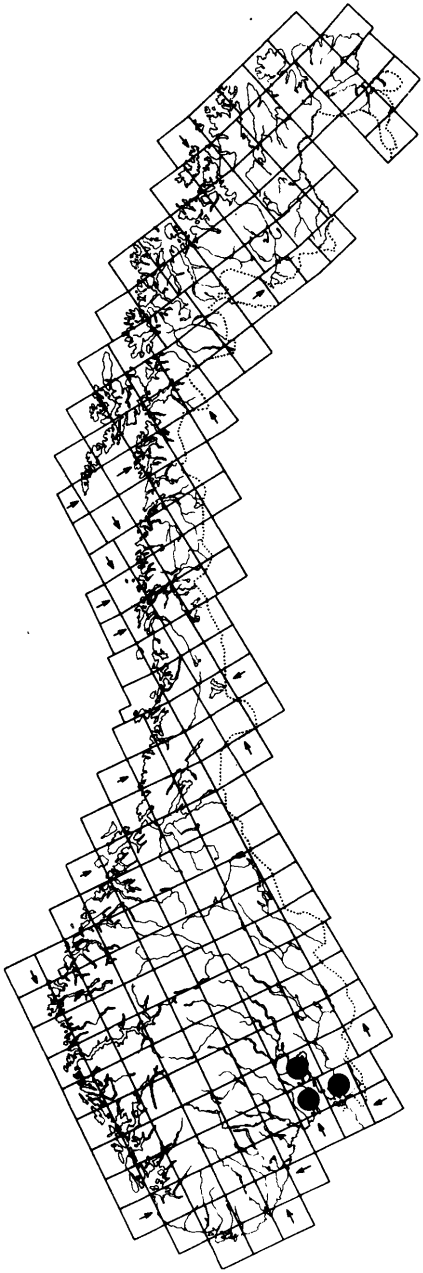
42. Catops picipes



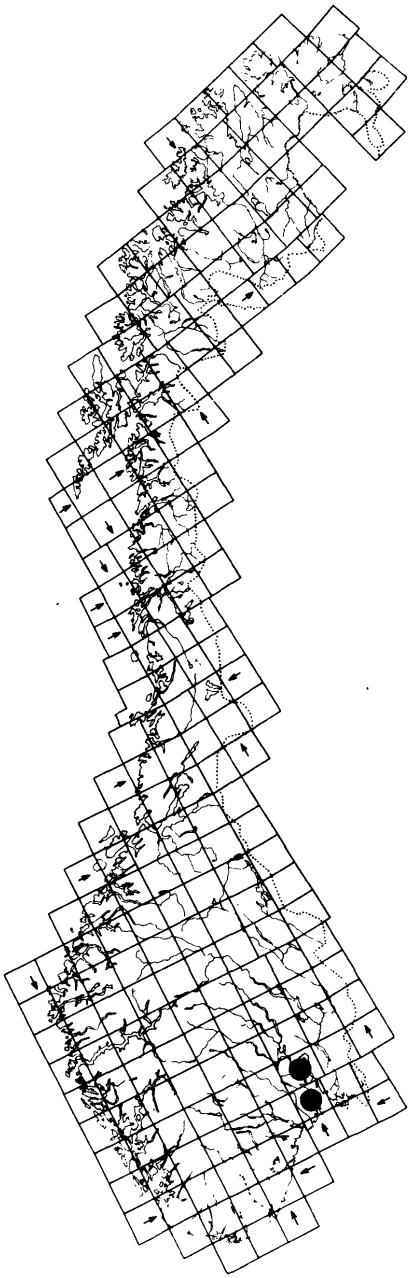
43. Catops subfuscus



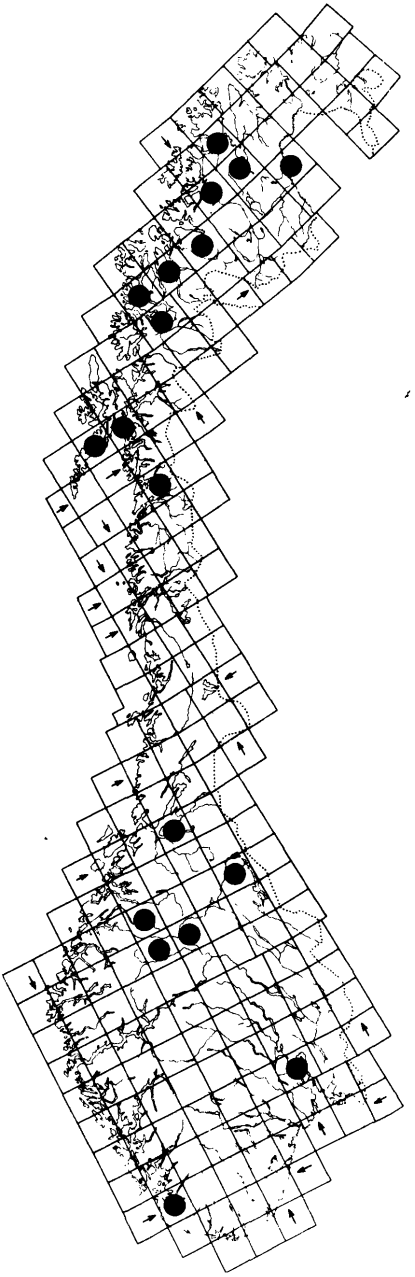
44. Catops tristis



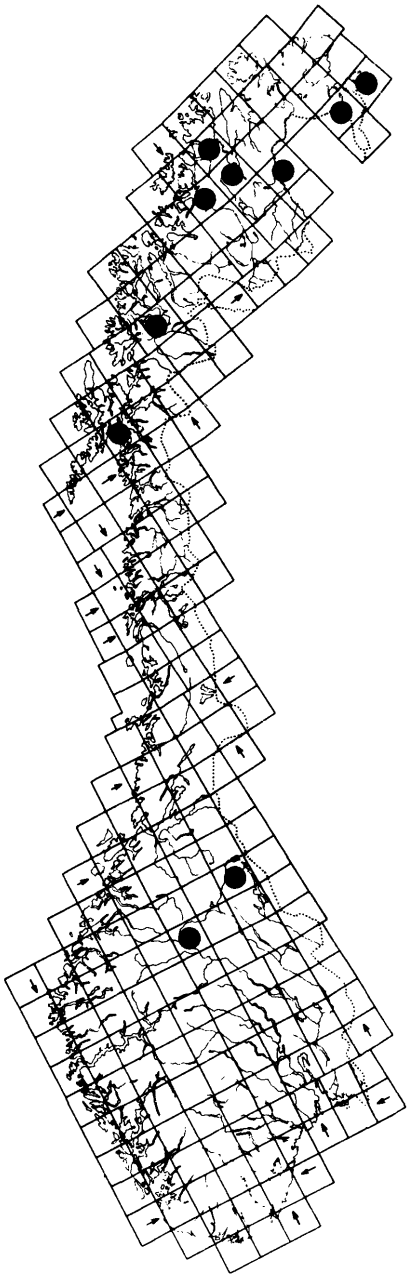
45. Catops westi



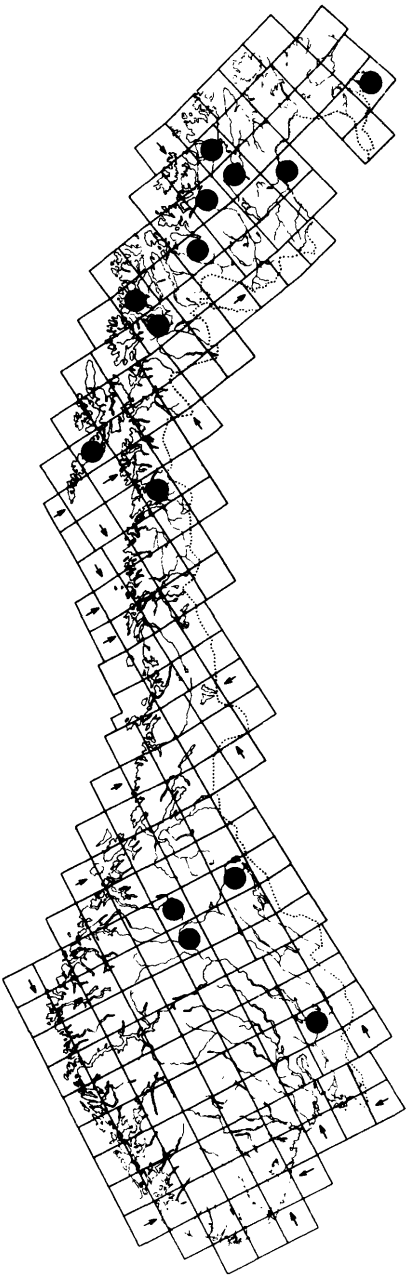
46. Colon angulare



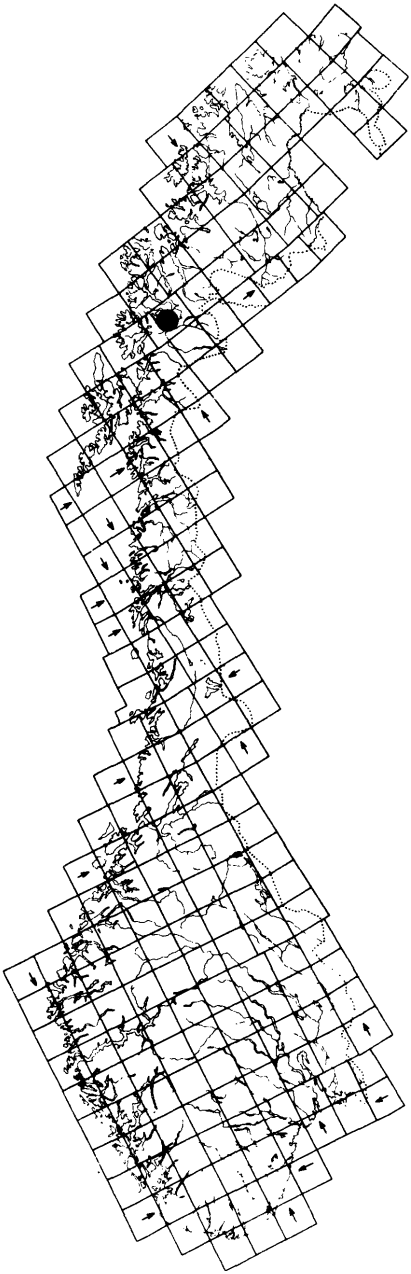
47. Colon appendiculatum



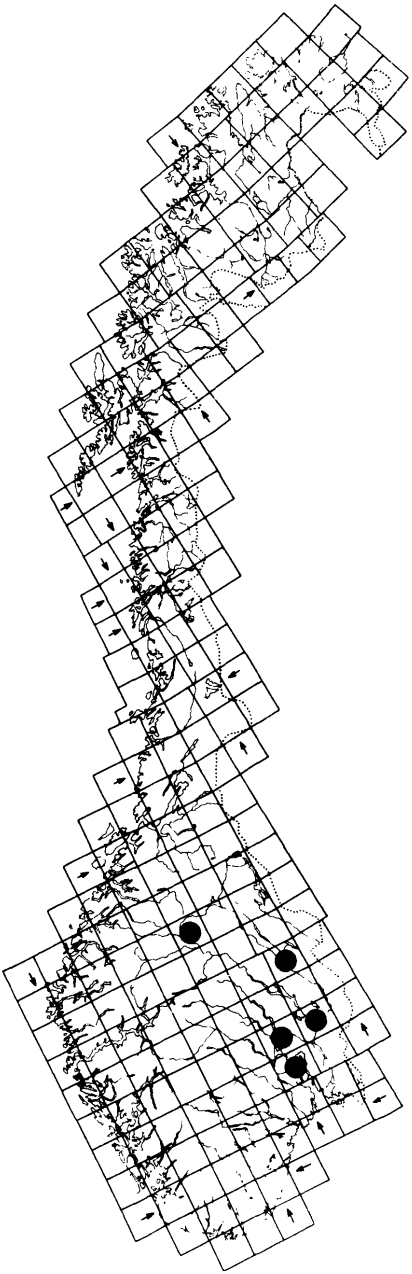
48. Colon arcticum



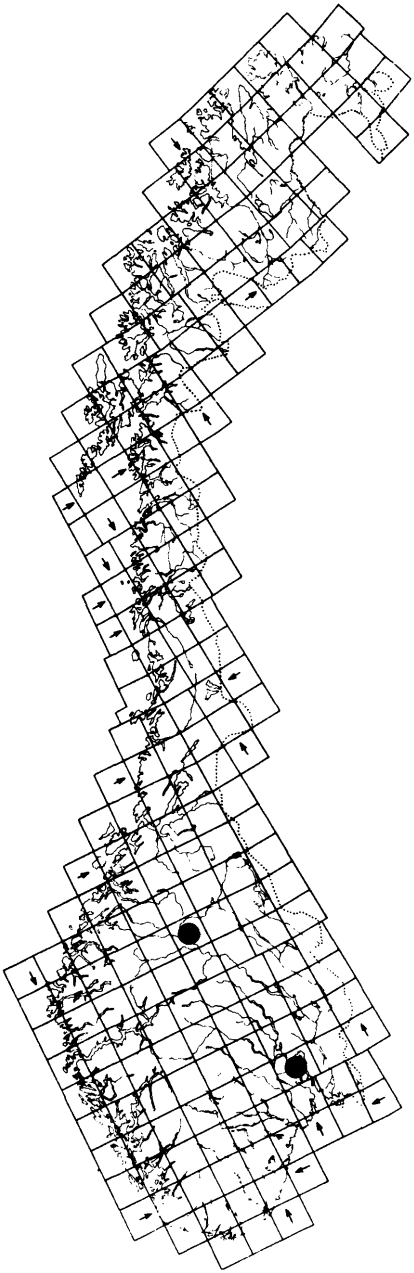
49. Colon bidentatum



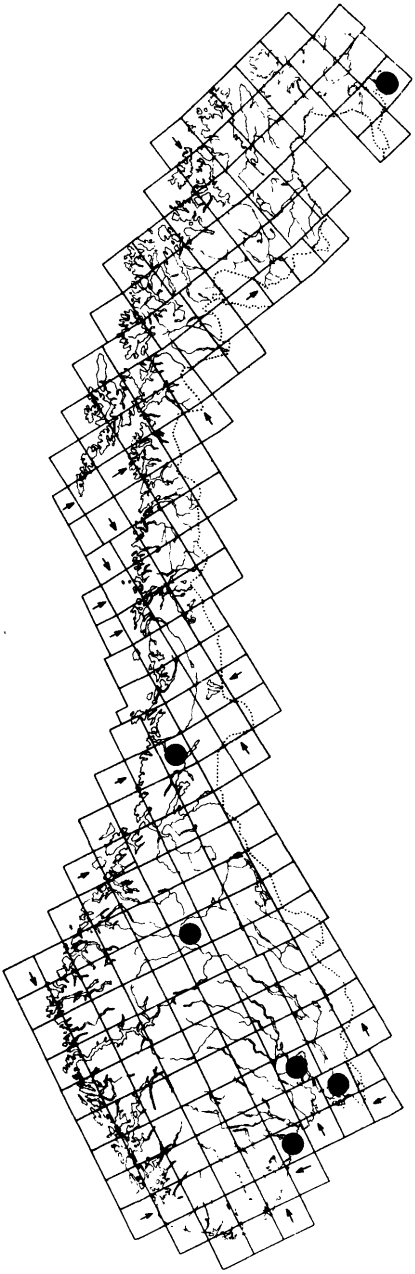
50. Colon brundini



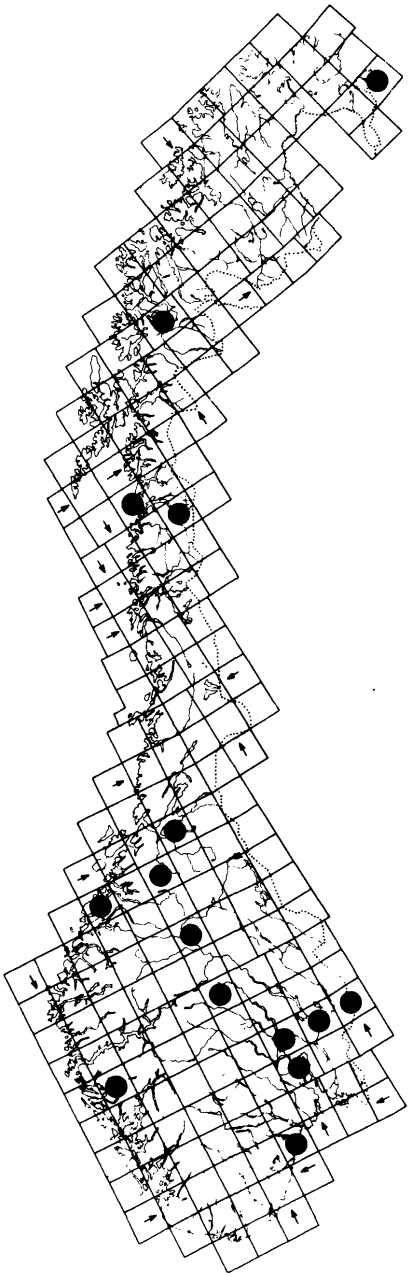
51. Colon brunneum



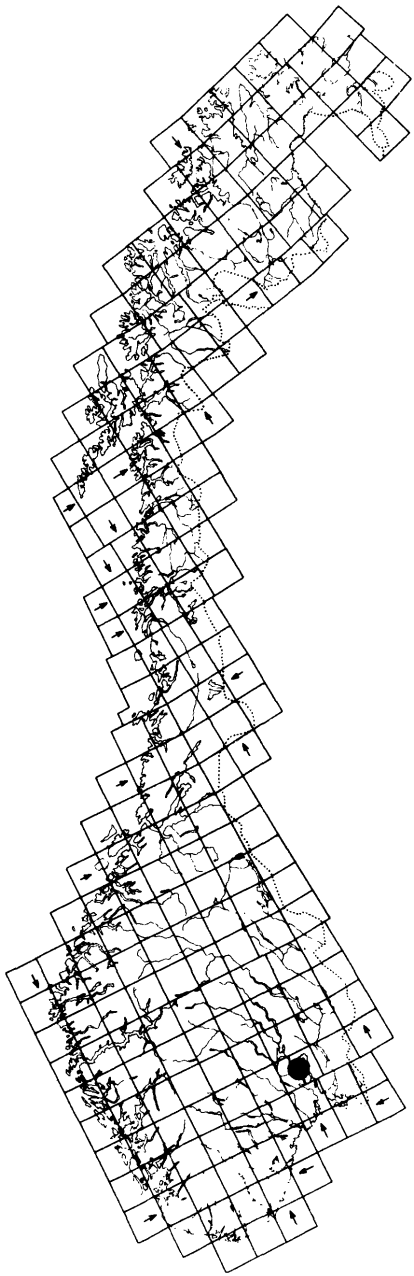
52. Colon delarouzei



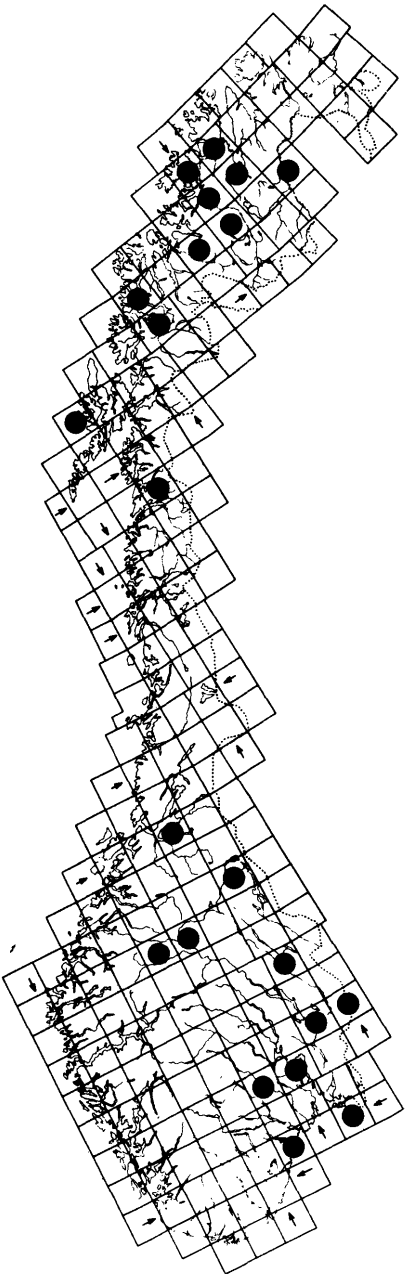
53. Colon dentipes



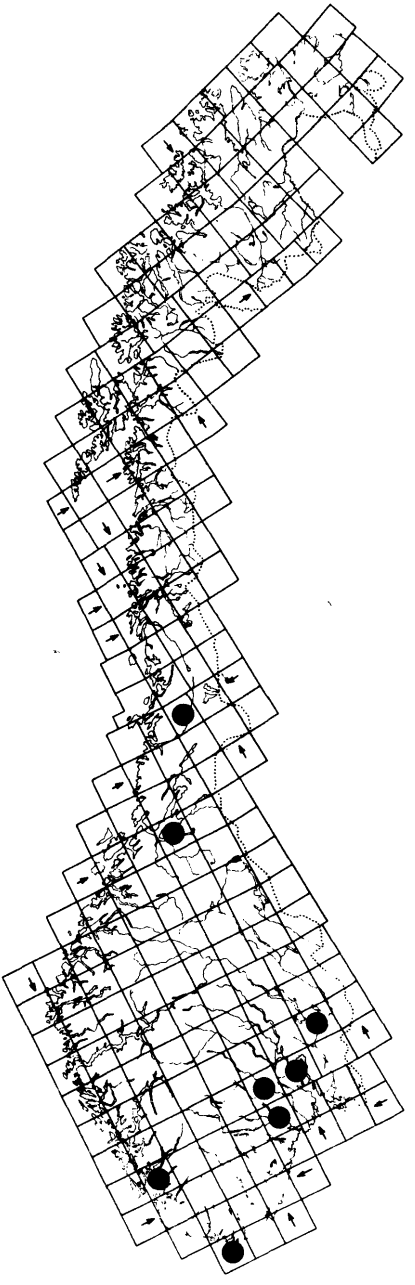
54. Colon latum



55. Colon rufescens



56. Colon serripes



57. Colon viennense