

Bulletin of the British Myriapod Group 4 (1987)

CENTIPEDES AND MILLIPEDES COLLECTED IN NORMANDY, FRANCE

R.D. Kime*, J.G.E. Lewis⁺, and S.J. Lewis§

* Square Maas, 3, 1630 Linkebeek, Belgium.

+ Taunton School, Taunton, Somerset, England.

§ Richard Huish College, Taunton, Somerset, England.

Barber (1986) has pointed out that the myriapod fauna of Brittany is of particular interest to students of British myriapods: the same is true of the fauna of Normandy which may have links with the fauna of the south of England. Details are given here of two collections made in Normandy, the first by R.D.K. in 1979 and 1980 and the second by J.G.E.L. and S.J.L. in 1985. The millipedes have been identified by R.D.K., the centipedes by J.G.E.L.

The 1979/80 Collection

One km NE of Catheux on D106; Beechwood on chalk hill. Oise. DR30 (Edge of Picardy). 23.v.1979. Glomeris marginata (Villers), Cylindroiulus nitidus (Verhoeff), Cylindroiulus punctatus (Leach), Leptoiulus kervillei (Brolemann), Tachypodoiulus niger (Leach), Polydesmus angustus Latzel, Polydesmus testaceus C.L. Koch, Brachydesmus superus Latzel, stadium V chordeumoid.

One km W of Abancourt; Beechwood. Oise. DR10 km W of 24.v.1979. Cylindroiulus punctatus, Tachypodoiulus niger, Brachydesmus superus? immature, immature chordeumoid.

Forêt de Brotonne; Beechwood with some oak. Seine Maritime. CQ38. 3.xi.1980. Glomeris marginata, Glomeris hexasticha ssp. intermedia Latzel, Cylindroiulus londinensis (Leach), Leptoiulus kervillei, Polydesmus angustus, Chordeuma silvestri C.L. Koch, Chordeuma proximum Ribaut, (The only known site where the last two species co-exist), Lithobius forficatus (Linn.).

Montreuil-en-Auge, by D85a, W of Val Richer Abbey; mixed deciduous/coniferous woodland, mainly beech, oak, silver birch Calvados, BQ85. 4.xi.1980. Glomeris marginata, Cylindroiulus nitidus, C. punctatus, Polydesmus sp. (immature), Polyzonium germanicum Brandt, Chordeuma proximum Ribaut, Melogona gallica (Latzel).

Immature Lithobius sp., Schendyla nemorensis (C.L. Koch), Strigamia crassipes (C.L. Koch), ♂, 18.5 mm, 49 pairs of legs, Brachygeophilus truncorum (Bergsö and Meinert).

Forges de-Clermont en Auge; Beech/oak hanger facing south. Top of scarp E of village on D85. Calvados. YV15 4.xi.1980.

Cylindroiulus nitidus, C. punctatus, Leptoiulus kervillei, Polydesmus inconstans Latzel, Brachydesmus superus, Chordeuma proximum, Melogona sp. stadium VIII. Lithobius forficatus, Strigamia crassipes ♂, 18.5 mm, 49 pairs of legs; ♀, 20 mm, 49 pairs of legs.

Forêt de Cerisey, N of D572 near Bas de Montfiquet; Beechwood with low holly, ivy, grass and mosses. Calvados. XV55. 4.xi.1980.

Polydesmus angustus, Brachydesmus superus, Chordeuma proximum, Melogona gallica, Anthogona variegatum Ribaut, Chamaesoma brolemanni Ribaut and Verhoeff. Lithobius sp., Schendyla nemorensis, Brachygeophilus truncorum.

Guilberville; Oakwood with beech and silver birch, brambles, ivy and bracken. Manche. XV52. 5.xi.1980.

Polyzonium germanicum, Chordeuma proximum.

Forêt l'Evêque, St. Martin-de-Besaces oakwood with beech and silver birch, heather, whortleberry, bracken, woodsage, acid, Calvados XV52.

Tachypodoiulus niger, Polydesmus angustus, Polyzonium germanicum, Chordeuma proximum. 5.xi.1980.

The centipede material is very poorly preserved. Brachygeophilus truncorum, Schendyla nemorensis, Gnathomerium inopinatum Ribaut, Strigamia sp.

Lithobius melanops Newport, Cryptops hortensis Leach, Geophilus carpophagus Leach, stadium adolescens I, 11 mm, 49 pairs of legs.

Bois de Buron, Ondefontaine; Beechwood with oak and birch, some bracken and whortleberries, acid. Calvados. XV63. 5.xi.1980.

Tachypodoiulus niger, Polyzonium germanicum, Chordeuma proximum, Lithobius melanops, Strigamia acuminata (Leach) ♀, 13 mm, 41 pairs of legs.

St. Martin-de-Sallen; Beech and oak with holly, ivy, bramble, fern moss, grass and whortleberries. Calvados XV82. 5.xi.1980.

Glomeris marginata, Tachypodoiulus niger, Brachydesmus superus, Polyzonium germanicum, Chordeuma sp. ♀.

Lithobius microps Meinert.

Forêt de Cinglais; Beech, oak and others, brambles. Calvados. XV83. 5.xi.1980.

Cylindroiulus punctatus, Polydesmus angustus, Chordeuma proximum.

Lithobius piceus L. Koch, Geophilus carpophagus ♀, 28 mm, 51 pairs of legs.

Cossesseville; Beechwood on steep slope with brambles, rocky.

Calvados. XV82. 5.xi.1980.

Glomeris marginata, Glomeris hexasticha ssp, intermedia, Cylindroiulus punctatus, Tachypodoiulus niger, Leptoiulus kervillei, Polydesmus angustus, Chordeuma proximum, Anthogona variegatum, Chamaesoma brolemanni.

Forêt de la Ferté Macé; Beech, oak, pine, bracken, grass, whortleberries, peaty and acid. Orne. XU98. 6.xi.1980.

Polyzonium germanicum, Chordeuman proximum.

Lithobius microps, Schendyla nemorensis.

Bois de Magny; Mature beech and some oak, bracken, peaty soil.

Orne. XU97. 6.xi.1980.

Polyzonium germanicum, Chordeuma proximum, Polydesmus spp. immature.

Forêt d'Ecouve, N.E. of St. Didier s. Ecouvès; Mature beech forest.

Orne. YU28. 6.xi.1980.

Leptoiulus kervillei, Polydesmus angustus, Brachydesmus superus.

Forêt d'Ecouve, W of D26, 4.5 km N of junction with D1; Beech forest.

Orne. BP87. 6.xi.1980.

Brachydesmus superus.

Forêt de Perseigne, Route de Ancinnes; Beechwood. Sarthe. BP96. 6.xi.1980.

Brachydesmus superus, Polydesmus sp., Chordeuma proximum.

Lithobius piceus, Lithobius crassipes L. Koch, Lithobius microps,

Schendyla nemorensis, Gnathomerium inopinatum, ♂, 21 mm, 41 pairs of legs,

♀, 19.5 mm, 41 pairs of legs, two immature specimens, 7 mm and 75 mm each

with 41 pairs of legs and 1 - 1 coxal pores.

Forêt de Bellême; Beech, some oak, honeysuckle, madder, spurge, woodsage.
Orne. 6.xi.1980.

Brachydesmus superus, Immature Leptoiulus, looks like kervillei but not certain.
Lithobius microps, Schendyla nemorensis: the eight specimens of this species collected showed considerable variation in the ratio of the length of the tibia of the terminal leg to the tarsus, viz. between 1:0.66 and 1:0.45. (Figs 1-3). Gnathomerium inopinatum, 8 mm, 39 pairs of legs.

Forêt de Reno Valdieu; Mixed deciduous. Orne. 6.xi.1980.

Brachydesmus superus, Polydesmus sp. immature, chordeumoid immature.

The 1985 Collection

Six km east of Carteret on Sortosville road (D 902); Under birch logs and litter. Manche WV87. 2.iv.1985.

Glomeris marginata, Cylindroiulus punctatus, Tachypodoiulus niger, Julus scandinavicus Latzel.

Lithobius piceus, Lithobius muticus C.L. Koch, Schendyla nemorensis.

Forêt de Cerisy, 4 km south of le Molay-Littry on D10; Beech/oak litter.
Calvados XV55. 3.iv.1985.

Glomeris marginata, Cylindroiulus punctatus, Tachypodoiulus niger,
Polydesmus angustus.

Lithobius piceus, Lithobius crassipes, Lithobius cacaratus C.L. Koch,
Lithobius tricuspis Meinert ? ♂♂♀. Dr. E.H. Eason writes "Too immature to be certain (whether these are agilis or tricuspis) but the shape of the tergite T8 abruptly rounded, T10, 12 and 14 blunt (not rounded) and sharp projections on T9, 11 and 13 (not blunt as in agilis) all support tricuspis".
Strigamia acuminata, 39 pairs of legs.

2.5 km west of Briquebec on D66 to Surtainville; Birch/Beech wood in litter and well rotted birch logs. Manche. WV98. 5.iv.1985.

(In litter) Glomeris marginata, Cylindroiulus punctatus.

(In logs) Lithobius variegatus Leach (five specimens): ♀, 19 mm, coxal pores 6.5.5.5. ♂, 19.5 mm, coxal pores 6.5.5.5. ♀, 16 mm, coxal pores 5.4.4.4. ♀, 13 mm, coxal pores 4.3.3.3. ♂, 12.5 mm, coxal pores 3.2.2.2. The

specimens were of typical colour pattern. No other centipedes were found in this habitat, neither in logs nor in litter.

Discussion

The most abundant millipedes species in Normandy in November 1980 were Chordeuma proximum and Polyzonium germanicum but they were characteristic of sandy and, or acid localities in particular. In basic areas there were other species such as Cylindroiulus nitidus, Leptoiulus kervillei, more Tachypodoiulus niger and Cylindroiulus londinensis (once). This seems to confirm the abundance of C. proximum in sandy areas referred to by Kime (1978). It is apparently an Atlantic species. Although it is found in S.E. England, albeit very much less than in the South-west, the most easterly record for France appears to be the one given here for the Forêt de Brotonne in Seine Maritime, however, Picardy and Artois have not yet been studied in detail. In eastern France, Chordeuma sivestre is the representative of this genus. It is odd then that C. silvestre occurs in Cornwall. R.D.K. has found Polyzonium germanicum a lot in France. It is very abundant in some of the woods of Normandy, especially in deep beech litter. In Great Britain it only occurs in Kent.

All the millipedes here recorded from Normandy occur in Britain, except Anthogona variegatum and Chamaesoma brolemanni, both small craspedosomids. Anthogona has not been found this far north before; the genus is centred in the Pyrenees. It was surprising that not a single Nanogona polydesmoides (Leach) was present in the collections as it is common in S.W. England.

The presence of Lithobius variegatus in Normandy is of interest. Until recently it was regarded as a species endemic to the British Isles but is now known to occur in Brittany (Barber, 1986) and the Iberian Peninsula and the western Mediterranean region (Eason and Serra, 1986). These latter authors have demonstrated that it is conspecific with Lithobius rubriceps Newport, which should be regarded as a subspecies, L. variegatus rubriceps. Eason and Serra discuss the distribution of Lithobius variegatus and conclude that climate is an important factor in the distribution of the species but not the sole one. Some other factor, such as a competing species from the east which has failed to penetrate Brittany and the Iberian Peninsula may be important. Lithobius variegatus may exist in a number of scattered populations

in northern and north-western France. If its distribution is due to competition with another lithobiomorph, then Lithobius piceus seems a likely possibility.

Gnathomerium inopinatum Ribaut, 1910 (= Arctogeophilus inopinatus) is found in western and central France but not in the British Isles it is a small species similar in size to Brachygeophilus truncorum and Schendyla nemorensis.

Acknowledgements

One of us, J.G.E.L., is indebted to the Royal Society Research in Schools Committee and to Dr. D.J. Stradling for their support, encouragement and advice.

References

- Barber, A.D., 1986. Some myriapods from Brittany. Bull. Br. Myriap. Gp. 3: 26-28.
- Eason, E.H. and Serra, A., 1986. On the geographical distribution of Lithobius variegatus Leach, 1814, and the identity of Lithobius rubriceps Newport, 1845 (Chilopoda: Lithobiomorpha) J. nat. Hist. 20: 23-29
- Kime, R.D., 1978. The distribution of millipedes in the south of England - a preliminary survey. Abh. Verh. naturwiss. Ver. Hamburg (NF) 21/22: 135-147.

Fig. 1. Tibia and tarsus of the terminal leg of three specimens of Schendyla nemorensis from Forêt de Belleme, 6.xi.1980.

- a) a female, length 16.5 mm with 39 pairs of legs.
- b) a male, length 15.5 mm with 37 pairs of legs.
- c) a female, length 17.0 mm with 39 pairs of legs.

