

## Book Review

## Projet d'atlas des chilopodes (Chilopoda) des Pays de la Loire: Bilan des 5<sup>ème</sup> et 6<sup>ème</sup> années



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This is the latest update on the atlas project for the Pays de la Loire, a region comprised of the départements of Loire-Atlantique (44), Maine-et-Loire (49), Mayenne (53), Sarthe (72) and Vendée (85). Brittany is to its north and west, Normandy to the north and the Atlantic Ocean (Bay of Biscay) to the west. As such, it is just that much further south than Normandy and Brittany and is obviously likely to show differences in its fauna compared with these latter regions which, in turn will show differences from southern England. Its interest to British (and Irish) recorders will be not only in the ways that the centipede species found there differ from our fauna but those which we have in common as well as differences between the various parts of Pays de la Loire such as the

relative scarcity of *Geophilus truncorum* overall and its northern tendency whereas the similar sized *Schendyla nemorensis* is very widespread.

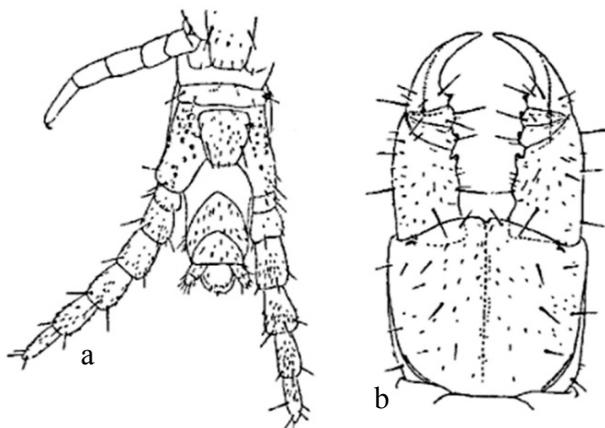
By comparison with Britain or Ireland (or The Netherlands, for instance), France (even without Corsica) is a large country geographically and between the Channel coast and that of the Mediterranean and between the Bay of Biscay, the Pyrenees and the Alps there is a correspondingly wide diversity of topography, habitats and land use as well as of centipede species. This makes mapping on a scale comparable to that carried out for these other countries a much larger task. Jean-Jacques Geoffroy and Étienne Iorio had started this by drawing up species lists and maps by départements and this can be seen, for instance, in the latter's *Catalogue biogéographique et taxonomique* (Iorio, 2014). There have also been studies of individual areas such as the Masif Armoricaïn or some of the national parks but here we have an ongoing project in a (relatively) limited area of France with mapping on a hectad (10km grid square) basis with a large number of contributors. This initiative, commenced in 2014 when 35 species were recorded (it was 32 in 2009, with 10 or less from each département except Maine-et-Loire where there were 28). In the current list, which includes distribution maps, all of the five départements have at least 29 species, 36 in Loire-Atlantique and a regional total of 43. The current number of reliably recorded (outdoor) species for Britain is just under 50.

The species common to both Britain and Pays-de-la-Loire are *Stigmatogaster subterranea*, *Hydroschendyla submarina* (2), *Schendyla nemorensis*, *Henia vesuviana*, *Strigamia acuminata*, *S. crassipes*, *S. maritima* (2), *Geophilus alpinus* (2), *G. carpophagus*, *G. easoni*, *G. electricus* (4), *G. flavus*, *G. osquidatum*, *G. pusillifrater* (1), *G. seurati* (2), *G. truncorum* (3) *Pachymerium ferrugineum* (4), *Stenotaenia linearis* (2), *Cryptops anomalans*, *C. hortensis*, *C. parisi* (2), *Lithobius calcaratus*, *L. crassipes*, *L. curtipes* (2), *L. forficatus*, *L. macilentus*, *L. melanops*, *L. microps*, *L. muticus*, *L. piceus*, *L. pilicornis* (4), *L. variegatus* (1), *Lamyctes emarginatus* and *Scutigera coleoptrata*. Numbers in brackets indicate the number of départements in the region the species has been recorded from if less than all five. The most commonly recorded species were *L. forficatus*, *C. hortensis*, *S. nemorensis*, *L. calcaratus*, *H. vesuviana*, *G. easoni* and *L. melanops*.

Species recorded from the region but not, so far, from Southern Britain or Ireland were *Dignathodon microcephalus* (2), *Schendyla monodi* (1), *Arctogeophilus inopinatus* (5), *Geophilus algarum* (1), *G. gavoyi* (5), *Lithobius agilis* (3), *L. aeruginosus* (2) and *Lamyctes africanus* (2). Of these, *L. agilis*,

12mm, has somewhat doubtful records from Ireland and Cornwall and is included in the Synopsis (Barber, 2009) whilst *L. aeruginosus*, up to 9.5 mm and, like both *Lithobius crassipes* and *Lithobius curtipes* with only 20 antennal articles, is referred to there as “possible”; both have 2+2 coxosternal teeth. *L. africanus* has been reported once from a glasshouse in Scotland but it is quite probable that it may have been reported as *L. emarginatus* as it is only in recent years that it has been distinguished in northern Europe. An article about it was included in the Autumn 2016 BMIG Newsletter (Anon, 2016).

*Dignathodon microcephalus* is a relatively large species, brown red in colour and up to 50mm with up to 89 leg-pairs. It is a member of the same family (Dignathodontidae) as *Henia*. As its name suggests, it has a distinctively small head which is broader than long. The coxal pores on the last legs (which are much swollen) open into pits and these legs lack claws. *Schendyla monodi* is a rare species of the littoral Atlantic, recorded twice and with 37-41 leg pairs. It has the usual schendylid characters of 2+2 coxal pores and no claw on the last legs. *Arctogeophilus inopinatus* (*Gnathomerium inopinatum*) (Fig. 1) is a



**Figure 1:** *Arctogeophilus inopinatus* after Brolemann, 1930. a) Posterior end, male, ventral; b) Forcipules, ventral.

small geophilid, comparable in size to *Schendyla nemorensis* and *Geophilus truncorum*, 18mm long and 39-41 leg-pairs of which the last pair are much elongated and have numerous small pores on their coxae. Each poison claw has a distinct basal tooth and there are similar teeth on all the other articles. *Geophilus algarum* is another littoral species, first described from Chausey (French Channel Islands) and is one of that group of littoral *Geophilus* species including *Geophilus seurati* which would seem to require further study. It is described as 35mm, 51(?) - 59 leg pairs and with 4+4 coxal pores on the last legs. *Geophilus gavoyi* is a species recorded from a number of départements in southern and western France; it is up to 30mm in length, has 39-55 leg-pairs and 4-7 coxal pores on

the last pair. Accounts of all these geophilomorphs can be found in Brölemann (1930) and further information in Iorio (2014) and Iorio & Labroche (2015).

These non-British species are always possibly going to be found in England at some time in the future as a result of chance introduction, extending range or climatic changes or might even be here already but rare and, as yet, undiscovered and the possibility of them being found in the Channel Islands should not be ruled out. *Lithobius aeruginosus* and *L. agilis* are both listed for the Massif Armoricaïn by Iorio (2006) along with *Schendyla monodi*, *Geophilus algarum*, *Geophilus gavoyi* and *Arctogeophilus inopinatus* and the latter was reported from both Normandy and Brittany in early issues of the BMG Bulletin (Kime *et al.*, 1987; Lewis & Kime, 1988).

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