Non-marine Recording – Highlights from the 2016 Recording Year (VII)

Introduction: 2016 produced a good batch of new vice-county (VC) and other records of interest (most from 2016, but some from earlier years). This Non-marine Report takes a slightly different format from previous ones and will describe some the key highlights of the year chosen from records that have already been validated. It will not, however, give a full list of all new VC records for the preceding year. A wealth of new VC and other notable records are submitted to the Society (or are obtained from outside sources such as iRecord), but they often arrive in bulk quite late in the year. It has become increasingly difficult to undertake the all-important checking and validation of these in time to complete an annual report before the AGM in April. Careful scrutiny is time-consuming but essential in maintaining the Society's enviable reputation for trusted data accuracy. The full new VC list will therefore be published later in the year. Such an extended period for record scrutiny and verification is well-established in most other biological recording societies (e.g. the Botanical Society of the British Isles, the BTO, the Sussex Ornithological Society & many more) who often publish records at least a year in arrears after all necessary checking is completed.

'Semi-slug' News: Arguably the most exciting reported find was the discovery by Christian Owen in late 2015, of the strange-looking 'semi-slug' *Daudebardia rufa* from a small area of spruce plantation near Caerphilly. This non-native species lives in central and southern Europe (nearest population is in eastern France). Details of this discovery were published in the *Journal of Conchology* (2015, **42**: 119 – 121).

A second notable find was of populations of *Phenacolimax major* from two woodlands surveyed during a Society field meeting to the Harwich area (VC 19: North Essex) in April 2016. These finds and those of the recorders are fully described in *Mollusc World* (**42**: 3 – 5). They are of interest in considerably extending the eastward range of this scarce ancient-woodland indicator species and are the first records of it from East Anglia.

Slug News: Most of the newly submitted records are for slugs. The recent publication of the slug guide to Britain & Ireland (Rowson *et al.* 2014) continues to stimulate a renewed interest in slugs. The recognition of many additional (mostly non-native) species from Britain and Ireland, and the splitting of others, has created a wealth of opportunities to undertake new recording work. Full site details and recorder names will appear for all new validated VC slug records on the complete 2016 list when published later in 2017. Some of the more interesting records include:

- *Deroceras panormitanum:* There is understandable confusion concerning this species because before 1999 it was known in Britain as *Deroceras caruanae*. The most recent Non-marine Atlas (Kerney 1999) shows '*D. panormitanum*' as a common and widespread species in Britain and Ireland. Recent work in slug biology (Reise et al. 2011) has, however, demonstrated that this slug was not true *D. panormitanum* but the newly described *D. invadens*. True *D. panormitanum* has, however, now been recorded in Britain with its first confirmed find from a garden in Cardiff (Rowson *et al.* 2014). This slug, a native to Sicily and Malta, has almost certainly been introduced and may be more widespread in Britain, a suggestion confirmed by three new 2016 records: Shropshire (VC 40), Glamorgan (VC 41) and County Wicklow (VC H20), the last of particular interest in representing its first Irish record

- *Arion (Kobeltia) owenii:* Another slug with an increasing number of new records. This is clearly an under-recorded species. Its distribution map (p. 52, Rowson *et al*., 2014, p. 131 Kerney 1999) seems strange, suggesting that Devon is an apparent hotspot. This is clearly an artefact resulting from the intense tetrad recording activities in the county by Michel Hughes and Dave Bolton. Although the slug appears to be genuinely scarce in some parts of the country (e.g. eastern England, northern Scotland) it is unlikely to stop abruptly on Devon's eastern borders with Somerset and Dorset. Similar patterns suggesting a slug hotspot in Devon are apparent on other slug maps, most particularly those for *Arion flagellus* (Rowson *et al.* 2014, p. 34, Kerney 1999, p. 122) and for *Arion vulgaris*; yet more confusion as named (incorrectly) as '*A. lusitanicus*' in Kerney (Rowson *et al*. 2014, p.36, Kerney 1999 p 121). *A. owenii,* as one of the most distinctive *Arion* species, can be identified with reasonable certainty without dissection. At least seven new VC records for it were made in 2016: VC 7 (North Wiltshire), VC 36 (Herefordshire), VC 48 (Merionethshire), VC 49 (Caernarvonshire, VC 101 (Kintyre), VC 102 (Islay in South Ebudes) and East Sutherland (107)
- *Testacella "tenuipenis":* It was long thought that three species of the carnivorous 'shelled' *Testacella* slugs occurred in Britain. Recent genetic analysis (Rowson *et al.* 2014) has shown that some supposed *T. scutulum* were in fact a separate species that has been given the provisional name of *T. (Testacella)* sp*."tenuipenis*". External differences between the two species are slight but reliable separation can be achieved by dissection. Only a few confirmed records of this newly recognised species exist, mostly from sites near the south coast of England or from the south of Ireland. It is therefore interesting to report a further 2016 record by John Hutchinson and Heike Reise from a site near St Lawrence on the south coast of the Isle of Wight.

Fig. 1 Illustration of a *Testacella*

- Other slug records: 2016 also saw numerous further slug records including many additional submissions for *Limacus maculatus*, *Ambigolimax valentianus* and *A. nyctelius* (the latter two 'look-a-like' slugs often being difficult to separate on external features and so requiring proficient dissection for reliable identification).

A Mediterranean snail on the NE English coast – further news & some detective work:

Late 2015 saw the unexpected discovery by Craig and Carl Ruscoe of *Theba pisana* (well beyond its UK strongholds in Cornwall, Devon and south Wales) near to Cresswell at the southern end of Druridge Bay in South Northumberland (VC 67). The record was reported in the 2015 Non-marine Report (Norris 2016). The snails were found in abundance both as juveniles and adults in sand dunes and even buried in sand on the upper sections of the beach over a distance of about 50 m. Further visits to the site in 2016 by Tony and Moira Wardhaugh and by the Non-marine recorder and others, further confirmed the presence of large numbers of the snail over at least 0.5 km of dunes and adjoining open habitats. Tony's detective work turned up an interesting reference suggesting that *T. pisana* may have colonised sites in Northumberland previously. A note published in 1831 by Joshua Alder (Alder 1831, p. 41) stated, "*It may be proper here to mention that I have in my possession specimens of the young of Helix cingenda, Mont., given to me by my friend Mr.*

W. Robertson, who informs me that they were collected by him on the sea banks of Northumberland or Durham, but is not sure of the exact spot: certainly at one or other of the following places, Seaton Sluice, Bamborough or Hawthorn Dene." *T. pisana* was known as *H. cingenda* in the 19th century. Although the Druridge Bay site is not mentioned specifically, it does suggest that *Theba pisana* inhabited coastal habitats in Northumberland nearly 200 years ago. It is not known whether populations of the snail have maintained a presence in the area for all that time or whether this is evidence of a previous colonisation that died out. The spread of *T. pisana* in Britain is limited by its susceptibility to frost. As this north-eastern site is subject to occasional extended periods of very low temperatures it seems doubtful, based upon the behaviour of *T. pisana* elsewhere, that this outlying population will remain, let alone spread in the area.

Fig. 2 Illustration of habitat at Druridge Bay

New find of a threatened snail: In June 2016 Adrian Sumner made the important discovery of dead shells of *Truncatellina cylindrica* from Catcraig, a coastal location in East Lothian (VC 82). *T. cylindrica* is a tiny snail (length approx. 2mm) that typically lives in open dry calcareous grassland or stony ground at the base of old walls. Currently it is only known living at a few widely-scattered British sites (Yorkshire, Norfolk, Bedfordshire, Co Durham and a coastal dune site in Fife). It is thought to have been lost from at least a further 13 sites in the last century. Because of its rarity and vulnerability, the snail was assessed as 'vulnerable' in the latest British non-marine status review (Seddon *et al* 2014). It is also listed as a 'Species of Principal Importance' on the governmental lists of England and Scotland. Adrian found the dead *T. cylindrica* amongst turf in an abandoned limestone quarry in June 2016 at the coastal site, which lies a few miles east of Dunbar. This is a new site for *T. cylindrica*, and the first record of this species in East Lothian since Rev. John M'Murtrie recorded it from North Berwick in 1888 (as *Vertigo minutissima*: *Journal of Conchology* **6**, pp 1–5 (1889)). Adrian intends to revisit this site in 2017 to undertake further surveys and try to locate live specimens of the snail.

Fig. 3 Habitat at Catcraig and (inset) *Truncatellina cylindrica*

A rare bivalve in an unusual habitat: Wybunbury Moss National Nature Reserve in Cheshire is a most unusual habitat. Most of the reserve consists of a floating peat blanket lying over a water-filled depression. Such a feature is sometimes known as a 'Schwingmoor' (a German word meaning 'swinging bog') and is one of only three such features in the British Isles (for more see: http://www.iucn-uk-peatlandprogramme.org/sites/www.iucn-uk-peatlandprogramme.org/files/NNR_Wybunbury_leaflet.pdf . In May 2016, Mags Cousins undertook mollusc sampling in various marginal areas of the reserve including a ditch draining into the Moss. Amongst a limited freshwater fauna, a sample produced two specimens of *Pisidium pseudosphaerium,* (identified by Martin Willing), a bivalve found in lowland marsh drains (mostly flood and coastal plain grazing marshes) in clean, but stagnant water, typically in sites with a rich aquatic vegetation and soft organic sediments. This is a very local species in the UK with most populations present in southern England and few

north of the Midlands. In Cheshire (VC 58) only three discrete sites are known for the species, all situated on the Wirral (NBN Gateway accessed on 5.01.2017). This new Wybunbury find greatly extends the species range in the county and, together with the presence of *Vertigo antivertigo* in adjacent marginal fen, attests to the 'ancient' origins of the habitat.

Fig. 4 Illustration of habitat at Wybunbury Moss

The Non-Marine Recorder wishes to extend thanks to Mags Cousins (Non-marine Mollusc Recorder for Shropshire) for extracting about 350 historic molluscan records for Shropshire and allowing transfer to the Conchological Society's data base.

References:

Alder, J. 1831. A Catalogue of the Land and Fresh-water Testaceous Mollusca found in the Vicinity of Newcastle upon Tyne, with Remarks. *Transactions of the Natural History Society of Newcastle* **1**: 26 – 41.

Kerney, M.P. 1999. *Atlas of the Land and Freshwater Molluscs of Britain and Ireland*. Colchester: Harley Books.

Reise, H., Hutchinson, J.M.C., Schunack, S. & Schlitt, B. 2011. *Deroceras panormitanum* and congeners from Malta and Scilly, with a redescription of the widespread pest slug as *Deroceras invadens* n. sp. *Folia Malacologica* **19***:* 201 – 233.

Rowson, B., Turner, J., Anderson, R & Symondson, B. 2014. *Slugs of Britain & Ireland*. *Identification, understanding & Control.* Field Studies Council, Telford.

Seddon, M.B., Killeen, I.J. & Fowles, A.P. 2014. A Review of the Non-Marine Mollusca of Great Britain: Species Status No. 17. *NRW Evidence Report No: 14*, 84pp, Natural Resources Wales, Bangor.

Adrian Norris & Martin Willing

Feb 2017