REPORTS FROM SPECIALIST GROUPS

SOMERSET INVERTEBRATES GROUP: MOLLUSC ATLAS PROJECT

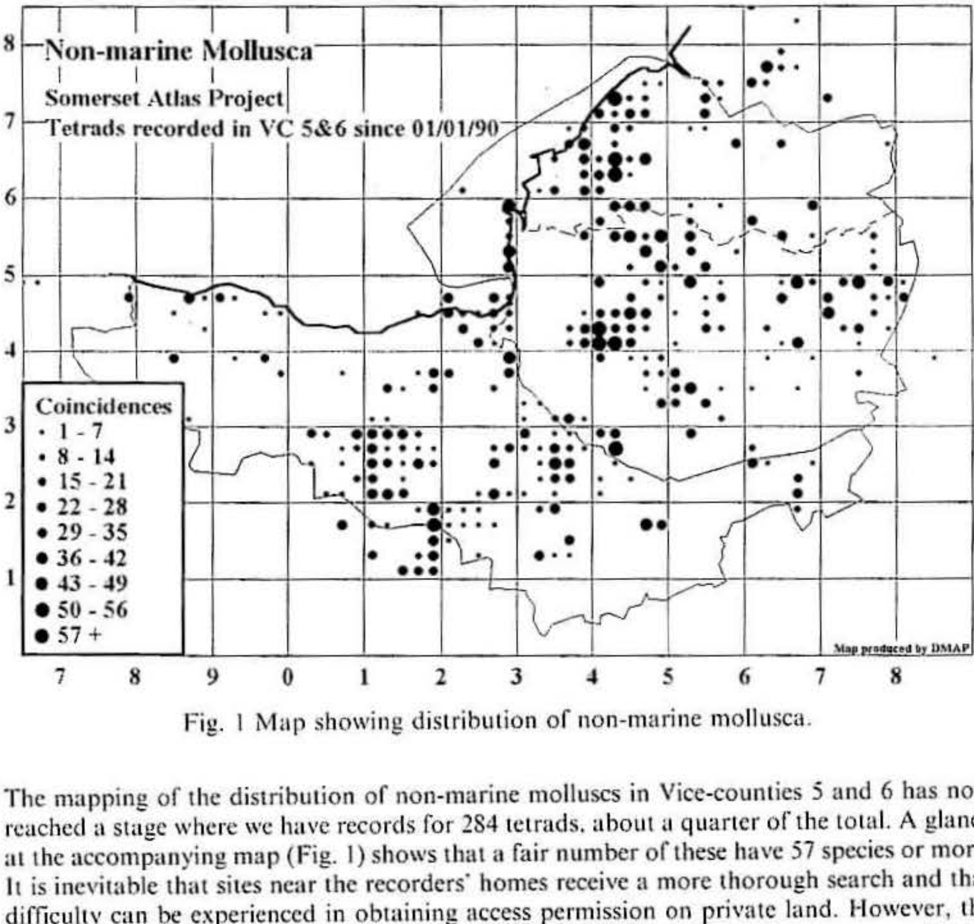

Fig. 1 Map showing distribution of non-marine mollusca.

The mapping of the distribution of non-marine molluscs in Vice-counties 5 and 6 has now reached a stage where we have records for 284 tetrads, about a quarter of the total. A glance at the accompanying map (Fig. 1) shows that a fair number of these have 57 species or more. It is inevitable that sites near the recorders' homes receive a more thorough search and that difficulty can be experienced in obtaining access permission on private land. However, the participation of two members of the team in District Biodiversity Surveys has added a wealth of new records to the total. There are still plenty of gaps, however, and we welcome records from individuals.

It is becoming increasingly clear that some species of aquatic mollusc especially can be present in relatively discrete populations. The nationally rare Large-mouthed Valve Snail *Valvata macrostoma* has so far been found in a very limited number of sites in a small area of West

Sedgemoor. The reason for this appears paradoxical since there are many other ditches similar in terms of shape and size, water chemistry, and the range of flora and other fauna present. There seems no apparent reason for the snail's limited distribution. We know so little of the requirements of individual species and whilst some, Wandering Snail *Lymnaea peregra*, Ram's-horn *Planorbis planorbis* and Whirlpool Ram's-horn *Anisus vortex*, for example, are found in almost any ditch on the Somerset Levels and Moors, others, like Nautilus Ram's-horn *Armiger crista* and White-lipped Ram's-horn *Anisus leucostoma*, are found in isolated populations. Some species can be linked to pollution levels. For example, Moss Bladder Snail *Aplexa hypnorum* and, to a lesser extent, Common Bithynia *Bithynia tentaculata*, are more tolerant of anoxic conditions and can, therefore, be found in sites which exclude other less tolerant species.

Another paradox revealed itself in a recent survey of the molluscs in a ditch on Catcott North Reserve belonging to the Somerset Wildlife Trust. This ditch was freshly dug out in 1996 from the original totally dried-out and vegetated ditch along the east side of Jane's Drove. Here we found a thriving colony of *Armiger crista* half way along the approximately 250 m ditch but not at the southern end where the ditch connects to an existing ditch along Higher Rope's Drove. This snail is minute, up to 2 mm across, with beautifully sculptured shell. How did it colonise this new ditch if it did not travel from a previously-existing ditch? Was it carried on the feet of birds, or even on the ditch-excavating machinery?

Aquatic molluscs can take a long time to colonise new ditches. In two ditches dug on Catcott North in 1983 and 1984 two species of ram's-horn mollusc, Twisted Ram's-horn *Bathyomphalus contortus* and Flat Ram's-horn *Hippeutis complanata*, took ten years to travel approximately 250 m from the southern ends of the ditches, where they are connected by pipes 2 m long to the main ditch system, to the blind-ending northern ends of the ditches.

These paradoxes all add to our problems in ditch management, especially with regard to species that apparently form discrete populations.

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