EARLY SAND-GRASS *MIBORA MINIMA* ON THE SEFTON COAST, MERSEYSIDE

Philip H. Smith April 2005

Early Sand-grass *Mibora minima* is said to be the smallest grass in the world (Rich 1997). It is a nationally rare annual which the New Atlas (Preston *et al.* 2002) shows as native in 15 National Grid hectads in Anglesey, the Gower, the Channel Isles and the Sefton Coast. The latter locality (v.c. 59, South Lancashire) was discovered in April 1996 by D.P. Earl and J. Buckley-Earl, growing on a small area of sand-dunes by Southport Marine Lake (SD 336186). Earl & Buckley-Earl (1997) and Rich (1997) describe the circumstances of the find, the latter stating that it is a new native plant for England, having no doubt been previously overlooked because of its early flowering season and diminutive size.

I mapped the plant's distribution at Southport in March 1999. It was found to be dominant in many patches over a linear distance of about 150m, some of the patches being up to 10m in diameter, others much smaller. Most of the population was associated with the south to south-east facing slope of a low (three-metre high) dune ridge which forms a "bulge" jutting out into the Marine Lake on its western side. Some small patches were also found on a plateau area to the west of the ridge (Fig. 1). All the colonies of Early Sand-grass were in sparsely vegetated areas with a high proportion of bare sand, often on the edges of sandy, informal footpaths. The most abundant of 16 associated vascular taxa were Kidney Vetch *Anthyllis vulneraria*, Little Mouse-ear *Cerastium semidecandrum* and Common Whitlow-grass *Erophila verna* (Table 1).
The association between *M. minima* and Isle of Man Cabbage *Coincya monensis* ssp. *monensis* is considered to be a world first (Earl & Buckley-Earl 1997).

A Species Action Plan for Early Sand-grass was included in the North Merseyside Biodiversity Action Plan (2001), one recommendation being that the plant should be monitored at regular intervals. Accordingly, the site was revisited in March 2004, five years on from the original survey, the grass being mapped by eye on a large-scale, colour aerial photograph flown in 2003. The data were then incorporated into the Sefton Coast GIS and compared with the 1999 map. *Mibora minima* still

occupies essentially the same site on the Marine Lake dunes but has increased in area by 47.3%, from 1465 to 2158 m^2 (Fig. 1). This spread is most noticeable in the southern part of the colony where the plant is dominant over an area of about 50 x 33m on level ground below the dune ridge. There are also small, isolated patches to the west and north of the area mapped in 1999. Some decline seems to have occurred in the central sector, where the steep slope of the dune ridge appears more stabilised and grassy than it did at the time of the first survey. As before, the plant borders several informal footpaths on top of the plateau.

It is clear that *M. minima* requires a very open, sparsely vegetated habitat with plenty of bare, but not mobile, sand in which to seed. At Southport Marine Lake, this is maintained by a slow input of blown sand from the adjacent foreshore, together with locally intense human trampling and moderate rabbit grazing. There is plenty of ostensibly suitable habitat in the vicinity of the colony, so it will be interesting to see whether the grass continues to spread in future years.

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Table 1. Frequency (DAFOR scale) of vascular taxa associated with *Mibora minima* at Southport.

Ammophila arenaria	f	*Lotus corniculatus*	f
Anthyllis vulneraria	a	*Myosotis ramosissima*	f
Carex arenaria	o	*Oenothera* spp..	o
Cerastium semidecandrum	a	*Plantago lanceolata*	o
Coincya monensis ssp. *monensis*	r	*Sedum acre*	o
Erophila verna	a	*Senecio squalidus*	o
Hypochaeris radicata	f	*Senecio vulgaris*	o
Leymus arenarius	o	*Taraxacum* sect. *Ruderalia*	f