Site notified to the Secretary of State on 18 March 1999

County: Cornwall **Site Name: West Cornwall Bryophytes**

District: Kerrier; Carrick

Status: Site of Special Scientific Interest (SSSI) notified under Section 28 of the Wildlife and Countryside Act 1981, as amended.

Local Planning Authority: Cornwall County Council; Kerrier District Council; Carrick District Council

National Grid References: SW 597324, 662404, 661407, 689402, 689445, 690442, 742429

Area: 53.93 (ha)

Ordnance Survey Sheet 1:50,000: 203, 204

1:10,000: SW 53 SE; SW 63 SE; SW 64 SE; SW 74 SW

Date Notified (Under 1981 Act): 1999 **Date of Last Revision: –**

Other Information:
A new site.

Description and Reasons for Notification:
This site is special for its population of rare and scarce bryophytes (mosses and liverworts) which are adapted to growing on copper-rich substrates. The site is made up of seven areas of formerly mined land and the lower plant interest is primarily found on the spoil tips containing copper-rich waste, although some of the areas have derelict mine buildings and other structures which also support important bryophytes.

Nationally rare species include the liverworts *Cephaloziella nicholsonii*, *C. integerrima*, *C. massalongi* and the moss *Scopelophila cataractae*. The composite site supports over 20% of all known British populations of these four species, *C. integerrima* has been confirmed at only two other sites in the British Isles since 1950 and *C. nicholsonii* is a British endemic.

At **West Basset Stamps** the nationally rare bryophytes *C. nicholsonii*, *C. integerrima*, *C. massalongi* and *Pohlia andalusica* occur. In addition, the nationally scarce liverwort *C. stellulifera* and the mosses *Bryum pallescens* and *Gymnostomum viridulum* are also present, the last being at its only locality in Britain where the species occurs with capsules.

The **Dolcoath Road** site supports the rare *C. nicholsonii*, *C. integerrima*, *C. calyculata*, *P. andalusica* and the scarce *C. stellulifera*. *C. calyculata* occurs on the tops and sides of two of the old wheel pit walls here.

The spoil tips, stream side and leat associated with the **Tolgus Tin Works** support *C. nicholsonii*, *C. massalongi*, *C. integerrima*, *S. cataractae* and *P. andalusica*, the latter being at its only site in Britain at which capsules have been recorded. Except for *S. cataractae*, the open areas of the mine spoil tips on the eastern side of **Porkellis Moor** support the same species.

At **Poldice Valley** the spoil tips and old mining structures support extensive areas of *C. nicholsonii*, *P. andalusica*, *C. stellulifera* and the nationally scarce moss *B. donianum*.

The land to the east of **Godolphin Bridge** supports *C. massalongi*, *P. andalusica*, and *S. cataractae* as well as *B. donianum*, *C. stellulifera* and *Fossombronia caespitiformis*.

The locations of particularly high interest for bryophytes within each area are those having very high levels of copper. As a result of the toxic nature of the spoil tips these locations support little more than a mat of low-growing bryophytes and, in some places, lichens. These occupy relatively small areas within a more generally scrubby vegetation, with European gorse *Ulex europaeus*, willows *Salix sp*, heather *Calluna vulgaris* or rank grassland. Although the growth of these invasive species is slow due to the toxic nature of the spoil tips, in the long term the sites will require active management to prevent them shading out or growing over the areas that are important for bryophytes. Where the structures and old buildings support important bryophytes then care must be taken during preservation or derelict land operations to safeguard the specialised conditions the plants require.