Table 2. Breeding populations (pairs or territories) of Golden Plovers and Dunlins in an area of moorland south of Snake Pass, Peak District, censused in two halves, Featherbed Moss (F.M.) and the ridge to Mill Hill (M.H.).

YEAR	Golden Plover			Dunlin		
	F.M.	M.H.	Total	F.M.	M.H.	Total
1972	1	11	12	4	4	8
1973	11	13	24	4	4	8
1974	15	10	25	3	5	8
1975	6	21	27	4	3-5	7-9
1976	7	13	20	3	5	8
1977	4	10	14	4	3	7
1978	5	1	6	2	5	7
1979	4	4	8	3	3	6
1980	10	14	24	3	8	11
1981	2	3	5	2	6-7	8-9
1982	3	6	9	1	6	7
1983	4	7	11	3	4	7
1984	5	12	17	3	3	6
1985	4	8	12	3	4	7

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THE TAFF ESTUARY UNDER THREAT

by Shelley Hinsley

The Taff Estuary in Cardiff (South Wales) is a Site of Special Scientific Interest (SSSI) because of its wintering waders and wildfowl. It is part of the larger Severn Estuary which is of International Importance under the Ramsar Convention on Wetlands of International Importance and is a Special Protection Area under the terms of EEC Directive 79/409.

Although the intertidal area of the Taff comprises only 2% of that of the Severn as a whole, it supports up to 10% of the Severn Dunlins and 26% of the Redshanks. The feeding densities of waders in the Taff are comparable to those of the very best wader habitat in Britain. The wintering population of Redshanks in the Taff has so far remained stable, despite the national decline in winter numbers of this species.

Part of the attractiveness of the Taff to waders and wildfowl lies in the presence of high level mudflats. These are the last areas to be flooded by the incoming tide and the first to be exposed on the ebb, and so are available for the birds to feed on for the longest time. This area, and the saltmarsh above it is used also as a roost site by several species of waders including Dunlin, Redshank and Curlew on all but the highest spring tides. A previous roost site adjacent to the Taff disappeared several years ago under a rubbish tip, and alternative roost sites are now about 6 miles away. At present many of the Redshanks avoid having to leave the estuary by roosting on two derelict jetties or, exceptionally, in calm conditions, by roosting out into the water.

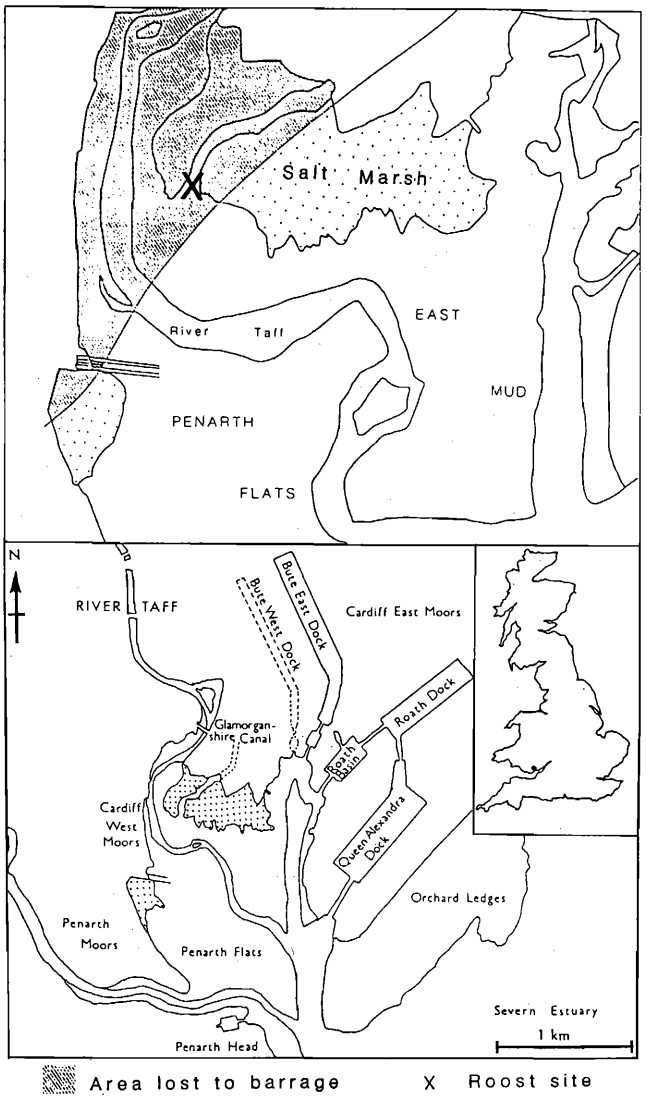

Figure 1. The Taff estuary in South Wales, showing the area that would be lost by the construction of a barrage.

The threat is in the form of a road which South Glamorgan County Council wish to construct across the estuary. Their preferred method is a road carried by a barrage damming the upper part of the estuary. This will destroy 10% of the SSSI by permanently flooding the mudflats and saltmarsh upstream of the barrage, and by the loss of the area covered by the barrage itself. The area affected is part of the highest level mudflats. Of the feeding area available at high water 1 hour, 26% will be lost and a further 25% will be vulnerable to major disturbance. Therefore, as much as 50% of the feeding area available for the longest time would be severely affected. In addition 30% of the saltmarsh will be lost, including the area used for roosting, and also the jetties used by Redshanks for roosting.

At present, South Glamorgan County Council are promoting a Bill ("County of South Glamorgan (Taff Crossing) Bill") in Parliament to gain permission to construct the road crossing as either a barrage or as an embankment and short bridge. This latter option will be as damaging to the SSSI as the barrage because it involves the construction of river training walls and a bund, and reclamation of the saltmarsh upstream of the crossing.

The area of the estuary that would be lost if the barrage were to be constructed is shown in Figure 1.

Objections to the Bill have been submitted by the Nature Conservancy Council (NCC), the Royal Society for the Protection of Birds (RSPB), the Cardiff Naturalist Society, the Glamorgan Trust for Nature Conservation, and the Severn Estuary Conservation Group. There is also an objection by British Dredging Ltd., who will have to be relocated and compensated since they presently operate from a site upstream of the course of the road. The conservation groups are not opposed to the road *per se*, as they accept the council's argument regarding its necessity as part of the redevelopment of Cardiff's Dockland. Instead they have proposed that the crossing be built as a high level bridge on pillars. A low level bridge on pillars would also be acceptable on nature conservation grounds, but unlike the high level bridge, this would still require moving and compensating British Dredging Ltd. A bridge on pillars would minimise damage to the SSSI, whereas the barrage, or the embankment and short bridge will do the maximum amount.

South Glamorgan County Council's reason for preferring a barrage seems cosmetic, since they view the tidal river and estuary as "unsightly" and feel that it would look more attractive if permanently full of water. They also feel that the impounded water would have amenity value, although there are doubts about water quality being high enough.

The conservation groups believe that this is insufficient reason for seriously damaging an SSSI. They have suggested that the best amenity value of the Taff Estuary could be achieved by making it a local nature reserve with educational and interpretative facilities. If desirable, high water levels could be maintained in the River Taff above the estuary by barrage (or similar) construction at the level of an existing road bridge a quarter of a mile above the course of the proposed road.

There are other problems associated with a barrage as opposed to a bridge. These include the cost, the risk of flooding, the water quality, alterations to sewers and drains, and post-construction maintenance. A barrage may be more expensive than a bridge, even without any additional costs such as compensation. Furthermore, the water table in Cardiff is rising and parts of the city already suffer from flooding when high spring tides coincide with high river levels. Permanently high river levels in the Taff are likely to exacerbate this, and impede drainage.

In the last 100 years, the intertidal area of the Taff has been reduced by reclamation by more than 50%. Today, the remaining 168 ha, are almost completely surrounded by urban and industrial development. It was to be hoped that SSSI status of the Taff Estuary would protect it from further encroachment. This now appears to be in considerable doubt.

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