The OBel Sands, an extensive area of sand waves up to 19 m high, cover over 1,000 km^2 in the Outer Bristol Channel off the Welsh coast. The sand wave field can be divided into a northern half, the NOBel Sands, with a dense concentration of bedforms on a sand substrate, and a southern half, the SOBel Sands, with isolated sand waves on a coarse sediment substrate. The sand wave field stretches west to east for about 40 km in its northern half; it narrows to the south to a width of about 12 km. Its north–south extent is over 37 km. In both areas, the sand waves are generally asymmetric in cross profile, with steep west-facing lee slopes associated with the Channel's ebb tides. The OBel Sands are surrounded by a sand sheet to the north, and elsewhere by a seabed predominantly of coarse sediment and rock; including these, the total area studied is about 2,400 km^2. The OBel Sands are in an area where human impact on the benthic environment is designated as high. It is an area affected by shipping, some fishing, telecommunication cables, and recent initiation of aggregate extraction. It has also been designated as a potential area for wind farm development. The sand waves commonly have abundant megaripples and secondary sand waves on their slopes; these dynamic environments maintain little or no epifauna. The infaunal assemblages are varied and primarily related to sediment composition, sediment stability, and depth. Species richness is highest in coarse sediment between isolated sand waves and on the nearby platform. These areas generally support a rich epifauna.