GLA 1: Abbey Wood, SSSI
London Borough of Bexley, TQ 480 786
Ownership: Local Authority.

Abbey Wood contains some of the most fossiliferous deposits in the Greater London area providing remains of a diverse mammal assemblage of early Eocene age. The deposits are also important for studies in the evolution of bird faunas. The deposits, known as the ‘Lessness Shell Bed’, occur in the Blackheath Beds of the Harwich Formation.

Blackheath Beds
The Blackheath Beds are predominantly non-glauconitic sandy pebble beds containing pockets of shells with rare remains of vertebrates. They were deposited in shallow coastal waters during the early Eocene period about 55 million years ago.

The mammal fauna
Excavations of these Beds have yielded 46 species of important mammalian fauna, as described by Jerry Hooker¹. Additional specimens are still being added during most excavations. The age is comparable to sites in the Paris Basin, and contains elements resembling those found in faunas of North America. Upnor Formation (latest Paleocene) and Thanet Sand Formation are present but the Woolwich Formation (early Eocene) is cut out by the unconformity at the base of the Blackheath Beds which represents incised valley fill.

Abbey Wood also yields remains of one of only two birds described from the Paleocene of Great Britain. A lower mandible (jawbone) has been reconstructed as the reference specimen of Marinavis longirostris, which is the only bird of this type known from this period. It appears to have been a large Procellariiform sea bird and would seem to indicate a coastal fauna. Most of the fossils found are of molluscs but the site is also famous for its sharks’ teeth. An identification sheet can be found on the website of the Tertiary Research Group².

Access
Paths run through the park and woods from the roadside (see map). The Capital Ring and Green Chain Walk³ pass close by and the site is described in GA Guide 68, The Geology of London⁴. The fossil collecting site is a fenced-off area with an open entrance way situated a short distance from a path in the woods. Surface collecting is permitted but excavation can only be carried out with prior permission – contact Bexley Parks and Open Spaces department on 020 8303 7777 or at parks&openspaces@bexley.gov.uk.

Further information can be found on the Natural England website (http://www.sssi.naturalengland.org.uk/Special/sssi/sssi_details.cfm?sssi_id=1003513) and in the GA Guide No. 68, pp. 99-104.
Fenced off fossil bed within Lesnes Abbey Wood
Source: London’s foundations, page 121