

hymenoptera, lepidoptera, diptera, neuroptera, orthoptera, and hemiptera.⁶²

The Hamstead (formerly Hempstead) beds form an interesting close to the Oligocene series. They consist chiefly of fresh-water, estuarine, and lagoon deposits. But they pass upward into a group of marine strata of which only about 30 feet are now visible. Among the more abundant or peculiar of the shells in this marine band the following may be mentioned: *Ostrea cyathula*, *O. adlata* (both peculiar), *Cytherea Lyellii*, *Corbula pisum*, *C. vectensis*, *Cuma Charlesworthi*, *Voluta Rathieri*, *Cerithium plicatum*, *C. Sedgwickii*, *C. inornatum*, *Strebloceras*.⁶³

Considerable interest attaches to the marine band forming the middle division of the Headon beds, as it serves for a basis of correlation between the English strata and their equivalents on the Continent. The band, so well seen in the Isle of Wight, occurs also at Brockenhurst and other places in the New Forest. It has yielded more than 230 species of fossils, almost all marine mollusks, but including also 14 species of corals. Of these organisms, a considerable proportion is common to the Lower Oligocene of France, Belgium, and Germany, and 22 species are found in the Upper Bagshot beds.⁶⁴

The Oligocene or fluvio-marine series of the Hampshire basin has likewise yielded vertebrate remains such as characterize the corresponding deposits of the Continent. They include those of rays (*Myliobates*), snakes (*Palæoryx*), crocodiles, alligators, turtles (*Emys*, *Trionyx*, numerous species), and a cretacean (*Balænoptera*); while from the Bembridge beds have come the bones of a number of the characteristic mammals (*Anchilophus*, *Anthracotherium*, *Anoplotherium*, two species, *Palæotherium*, six or more species, *Chœropotamus*, *Dichodon*). The top of the fluvio-marine series in the Isle of Wight has been removed in denudation, so that the records of the rest of the Oligocene period have there entirely disappeared.

⁶² H. Woodward, *Quart. Journ. Geol. Soc.* xxxv. p. 342. C. Reid, "Geology of the Isle of Wight," p. 177.

⁶³ C. Reid, *op. cit.* p. 206.

⁶⁴ A. von Koenen, *Q. J. Geol. Soc.* xx. 1864, 97. Duncan, *op. cit.* xxvi. 1870, p. 66. J. W. Judd, *op. cit.* xxxvi. 1880, p. 137; xxxviii. 1882, p. 461. H. Keeping and E. B. Tawney, *op. cit.* xxxvii. 1881, p. 85; xxxix. 1883, p. 566. E. B. Tawney, *Geol. Mag.* 1883, p. 157. W. Keeping, *Geol. Mag.* 1883, p. 428. J. W. Elwes, *Brit. Assoc.* 1882. Sects. p. 539.