

they are now ; but pre - Pliocene dolphins, cats, monkeys, stags, all belong to closely-allied and well-defined 'genera,' but different from the living forms.

Alligators and crocodiles are known from the Upper Chalk ; *Tomistoma* since the Miocene ; *Gavialis* since the Pliocene.

The oldest surviving reptile is *Sphenodon*, the Hatteria of New Zealand, a fair representative of what generalized reptiles of the later Triassic period seem to have been like ; and to the same period belongs *Ceratodus*, the Australian mud-fish, hitherto the oldest known surviving genus of a very ancient and low type so far as Vertebrata are concerned.

Now let us see if the above estimates of geological time are so utterly inapplicable to animal evolution. On purpose we take one of the lowest estimates, about 28,000,000 years, and apportion them equally to the various strata or epochs.

The original owner of the famous Trinil skull, a *Pithecanthropus erectus*, lived,