

<i>Carinaria cithara</i> , Benson.	<i>Atlanta gaudichaudii</i> , Eydoux and Souleyet.
„ <i>punctata</i> , d'Orbigny.	„ <i>fusca</i> , Eydoux and Souleyet.
„ <i>gaudichaudii</i> , Eydoux and Souleyet.	„ <i>depressa</i> , Eydoux and Souleyet.
„ <i>atlantica</i> , Adams and Reeve.	„ <i>rosea</i> , Eydoux and Souleyet.
„ <i>cornucopia</i> , Gould.	„ <i>quoyana</i> , Eydoux and Souleyet.
<i>Atlanta peronii</i> , Lesueur.	„ <i>mediterranea</i> , Costa.
„ <i>turriculata</i> , d'Orbigny.	„ <i>violacea</i> , Gould.
„ <i>lesueurii</i> , Eydoux and Souleyet.	„ <i>tessellata</i> , Gould.
„ <i>involuta</i> , Eydoux and Souleyet.	„ <i>primitia</i> , Gould.
„ <i>inflata</i> , Eydoux and Souleyet.	„ <i>cunicula</i> , Gould.
„ <i>inclinata</i> , Eydoux and Souleyet.	„ <i>souleyeti</i> , Smith.
„ <i>helicinoides</i> , Eydoux and Souleyet.	<i>Oxygyrus keraudrenii</i> (Lesueur).
„ <i>gibbosa</i> , Eydoux and Souleyet.	„ <i>rangii</i> , Eydoux and Souleyet.

The gasteropod genus *Ianthina* is also pelagic, while the species of coccolithophoridæ are very numerous.

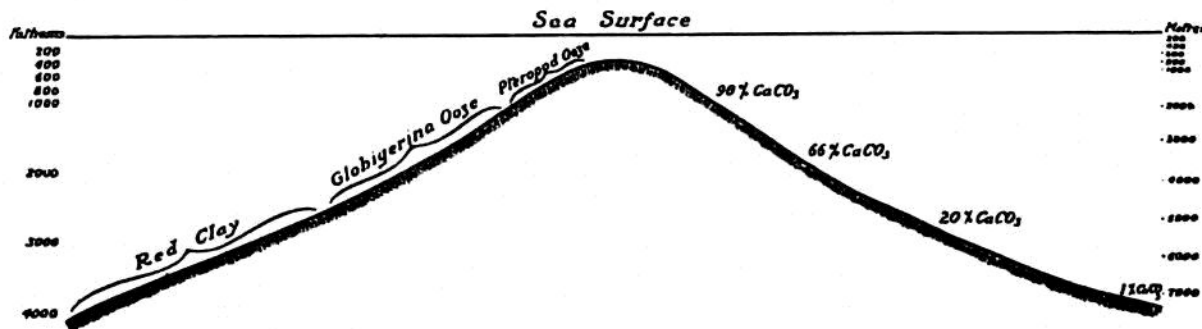


FIG. 142.—DIAGRAM SHOWING GRADUAL DISAPPEARANCE OF CALCIUM CARBONATE WITH INCREASING DEPTH.

The distribution of the dead shells of these pelagic organisms in different depths is peculiar and remarkable. If we suppose a cone to rise from a depth of 4000 fathoms up to within half a mile of the surface far from land in the warmer regions of the ocean (see Fig. 142), we shall find on the upper surface of this cone, and down its sides to about 1000 fathoms, nearly every shell of pelagic organisms represented in the deposit, even the smallest and most delicate. At about 1500 fathoms many of the thinnest and smallest shells will have disappeared, and the Pteropod ooze passes gradually into Globigerina ooze. At 2000 fathoms there may not be a trace of pteropods, and some of the more delicate foraminifera will also have disappeared. At 2500 fathoms the larger and thicker foraminifera shells still remain, and the deposit becomes a Red clay with some carbonate of lime. At 4000 fathoms not a trace, or little more than a trace, of these shells can be found, and chemical analysis does not show 1 per cent of calcium carbonate.

Disappearance of calcium carbonate with increase of depth.

Now it has been shown by hundreds of observations that