

found, and a tri-radiate spiculum of a sponge.\* Dr. Bailey has also observed two kinds of living Gaillonellæ, which are identical with fossil species. Hence it appears, that in the northern seas of the present day, there exist minute animals precisely similar to those which lived in a much lower latitude, at some very remote period.

The prevalence of marine and fresh-water animalcules in the same deposit is not unusual; and the remarks of Dr. Bailey on this subject are so just and pertinent, that I am induced to insert them, as a salutary caution against hasty generalizations. Dr. Bailey, after describing a species of Gaillonella (*G. moniliformis*), as an inhabitant only of salt and brackish water, and stating that he had also found it sixty miles up the Hudson River, near West Point, observes—"The Fauna and Flora of the Hudson at this place would, if in a fossil state, be rather puzzling to the geologist, on account of the singular mixture of marine and fluviatile species. While *Valisneria* and *Potamogeton* (two common fresh-water plants), grow in such vast quantities, in some places, as to prevent the passage of a boat; and the shore is strewn with fluviatile shells (such as *Planorbis*, *Physa*, &c.) in a living state; yet we find the above plants entangled with Algæ (sea-

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\* Microscopical Journal, Plate XV. contains figures of these objects.