

never been demonstrated in the muscles of invertebrates, and its presence in any of their tissues is generally denied. I intended to determine the creatine content, if any, of *Salpa*, *Balanoglossus* and one or more tunicates. The first two forms were not available at Mount Desert, but the large tunicate, *Boltenia* was suitable. Examination of *Boltenia* indicated that creatine, or a substance resembling it, is present in the gonads. This finding suggested examination of the gonads of other invertebrates, and a similar substance was found in the gonads of *Echiurus*, although the muscle contained traces. It is necessary to collect much larger amounts of material in order to make identification certain. If established, it will be the first time that creatine has been found in invertebrates.

2. An investigation of the nature of the slime of *Myxine*. This appears to consist of a true mucin and of another protein which is more like fibrin in its appearance. The slime seems to owe its peculiar tenacity to the combination of these two kinds of protein, one protecting the other.

3. An examination of the extractives (water-soluble substances) of *Myxine* muscle.

4. An examination of the extractives of *Echiurus* muscle. Both seem to contain previously unknown substances.

## STUDY OF THE LICHENS ON MOUNT DESERT ISLAND 1931

By CHARLES C. PLITT, *University of Maryland*

During the summer of 1931 I continued my studies of the lichens of Mount Desert Island, being particularly interested in the marine and maritime species. I also paid attention to the Cladoniae, and was surprised to find 34 different species. Some of the species have two, three or even more varieties or forms, making a grand total of 84 different Cladonia forms.

## THE DEVELOPMENT OF THE SUPERFICIAL VOLAR ARTERIAL ARCH IN MAN

By H. D. SENIOR, *New York University*

As part of a study of the development and anomalies of the arteries of the human upper extremity, the conditions in Harvard embryos 2051, 2095, 2246 and 1913, and Carnegie embryos 940, 423, 424 and 409 were collated. It became clear for the first time that the vessel which afterwards becomes the superficial volar arterial arch is originally a subsidiary channel of drainage between the deep volar arterial