

## GENERAL NOTES.

BOTANY.<sup>1</sup>

EXOTIC PLANTS AROUND SAN FRANCISCO BAY. — Many of the species of the Australian eucalypti and acacias mature their seeds in the climate of the shores and neighborhood of San Francisco Bay; many of the foreign geraniums and fuchsias also seed and fruit in the open air, though exposed more or less to the trade-winds; this is notably the case at the university grounds at Berkeley, which are in a line due east from the Golden Gate. — R. E. C. STEARNS.

PREISSIA COMMUTATA. — In a communication to the editor, Mr. Henry Gillman reports *Preissia commutata* (liverwort) at Laughing Fish River, and Eagle River, Michigan, at White-Fish Bay, Wisconsin, and several other localities on the Lakes. The plant occurs chiefly on sandstone.

SEQUOIA SEMPERVIRENS. — The statement on page 571 of the NATURALIST for 1875, of the discovery of a grove of colossal redwood trees, *Sequoia sempervirens*, proves to have been a hoax.

Very large specimens of this species are occasionally met with in the forests of the Coast Range. Six miles east of Stewart's Point and twenty-three miles west of Healdsburg, in Sonoma County, a fine specimen may be seen on the farm of James McCappin; it is not far from three hundred feet in height, and reaches up about one hundred feet to the first limb; it is quite straight and symmetrical, and measures seventy-one feet four inches in circumference at one foot from the ground; seven feet higher the circumference is forty-six feet. — R. E. C. STEARNS.

ÆSTIVATION OF THE FUCHSIA. — "In the books," the petals of the fuchsia are described as convolute. At my request, one of my students examined one hundred and fifty-nine flowers of various species, hybrids, and varieties. The petals exhibited sixteen different modes of arrangement with reference to each other. Only twenty-eight, about one sixth, were regularly convolute; of these, twenty-one twisted to the right, and seven to the left. Seventy-five flowers, nearly half of all examined, had one petal outside at each edge, the others in regular order. In thirty-seven cases, one petal was entirely outside, the one opposite to it had both edges covered by those next to it.

The foregoing remarks are kindred to those on Phyllotaxis of Cones, in the NATURALIST, vii. 449, and on Imbricative Æstivation, viii. 705. — W. J. BEAL.

VALLISNERIA SPIRALIS. — This plant, growing in moderately deep water in the south of Europe, has long been a favorite object of cultivation in aquaria, from the clearness with which the rotation of the protoplasm

<sup>1</sup> Conducted by PROF. G. L. GOODALE.