

book. The plant is described under Bauhin's name, *Lysimachia lutea corniculata*, the closely written description covering the whole margin of the page. Numerous marginal notes on other plants, by the same author, are found scattered all through the volume. Among the points mentioned in the description which make it certain that this plant was *O. Lamarckiana* and not *O. biennis* or *O. grandiflora*, the forms with which it has most frequently been confused, may be mentioned the following: (1) the flowers are large, 3 or 4 inches long; (2) the rosette leaves are long, pointed and obscurely sinuate; (3) there is present on the branches a type of hair arising from red papillæ;¹ (4) the buds are quadrangular. The first character distinguishes the plant from *O. biennis*, while either of the characters (2) or (4) make it certain that the plant is not *O. grandiflora*.

The differences from the *O. Lamarckiana* of our present cultures are that the rosette leaves seem to be narrower and paler green, and there are secondary branches. The last point is sometimes true of our present *O. Lamarckiana*. The characteristic crinkling of the leaves is not mentioned in this account; but it is definitely described in an independent account of an *Oenothera* from Virginia, published by another author in 1651.

This marginal note is the earliest description of an *Oenothera* now known to exist. I have not yet been able to learn anything regarding its worthy author, but he may have been connected with a garden in England, and he was certainly a close observer. The record is as complete and accurate as could be desired, to prove to one familiar with the characters of these forms the identity of the plants in question. It is safe to say that there are few American plants of which there is such an early accurate record as this.

DeVries called attention, in 1905, to records which showed that the *O. Lamarckiana* at present found in European gardens, and from which the plants of his cultures also originated, was introduced into Europe from

¹This character is also present in some forms of *O. grandiflora*.

Texas in 1860. The manuscript here referred to shows that the Virginia plant was very similar to, and possibly identical with, the form from Texas.

Other records, which I shall not refer to here, show that *O. Lamarckiana*, which must have been derived from the Virginia plants, had escaped and was growing wild in England as early as 1805, and probably much earlier. Cultures of this English form by MacDougal, and more recently by myself, have shown it to be almost or quite identical with the *O. Lamarckiana* of DeVries's cultures.

Owing to the authority of Linnæus, later writers failed to distinguish between large-flowered and small-flowered forms, both going under the name of *O. biennis*. Not until after *O. grandiflora* was introduced into Kew from Alabama in 1778, was *O. Lamarckiana* segregated as a separate form; first described by Poiret under the name *O. grandiflora*, for which Seringe afterwards substituted the name *O. Lamarckiana*. An unpublished description of *O. grandiflora* Ait., by L'Heritier, dated about 1788, is far more complete than the brief characterizations of Aiton and Willdenow, and is important in proving that the *O. grandiflora*, as we now know it from Alabama, was the form described. This manuscript I have also seen.

Photographs and transcriptions of these manuscripts, together with other important historical data regarding these forms, whose identity has been subject to question, will be published at another time. Of these records, the first mentioned is evidently of extreme importance, showing as it does that a form at least closely similar to our present *O. Lamarckiana* was the first *Oenothera* introduced from Virginia into European gardens, and hence that it did not originate in cultivation.

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OPHIDIAN NOTES AT THOMPSON'S MILLS, NORTH
GEORGIA

THE scarlet snake (*Cemophora coccinea* Blumenbach) appears to be more or less widely

distributed throughout the higher piedmont region of Georgia. During the spring of 1909, the writer captured two individuals at Thompson's Mills, North Georgia. One, a very small specimen, was found beneath some rocks in a dry, upland thicket, beneath which was a vigorous growth of *Opuntia opuntia*. The second specimen, which was of rather large size for the species, was dug from soft, rich soil in low ground bordering a small creek. The scarlet snake is very beautifully patterned above with scarlet, orange and black. It is a rather sluggish creature and is perfectly harmless, usually making little effort to escape when handled. Owing to its habit of keeping concealed beneath rocks, decayed logs or soil, this little snake is not frequently seen. Although the scarlet snake can not be considered a common species in this region, yet many of the farmers here claim they have met with them, usually during spring plowing. The scarlet snake probably occurs at higher altitudes in Georgia, though less frequently. It has been taken at Gainesville, Georgia.

Until the summer of 1893, when a specimen of this snake was taken in the District of Columbia, its range was recorded only from South Carolina, throughout the Gulf States to the Mississippi, mainly in the coastal plain area. Although it appears most abundant in the low, sandy coastal areas of the southeastern states, and has been considered typically an austroriparian form, it is without doubt also well represented in Georgia throughout the Carolinian area, and the limits of its range come very close to the mountains.

The copperhead (*Ancistrodon contortrix*) Linn. is occasionally taken in the Thompson's Mills region. This reptile is widely distributed throughout the east from New England to Florida and beyond the Appalachians to Illinois. In the Thompson's Mills region the copperhead is confined generally to more or less wooded, dry upland situations. It especially prefers dry, rocky hillsides. Its rich brown mottlings of various shades harmonize it well with the soil and dead leaves of thickets and open rocky woods, which it frequents. The

food of the copperhead consists of various small creatures as frogs, mice, etc., and very probably caterpillars and insects also. At Thompson's Mills, in October, 1909, the writer saw a pair of large copperheads killed in a shallow ditch on a dry, wooded hillside. Both were lying stretched out together in the sunshine when killed. It was discovered that one of these had in its mouth a very large, hairy caterpillar frequently seen in oak woods.

The copperhead is one of our dangerously poisonous snakes, but will usually try to escape quietly if given a chance. It should be particularly looked for around rocky cliffs in dry woods, for this is its favorite habitat. The writer well remembers meeting a copperhead in this situation while collecting ferns. He had jumped down into a shallow, rock-enclosed hollow filled with leaves. There was a sudden commotion beneath his feet of some creature trying vigorously to escape, which at first thought he concluded must be a rabbit. On glancing down, it was something of a surprise to see a huge copperhead securely pinned down by his weight. It took but an instant to leap completely clear of snake and hollow, and the reptile slowly made its escape among the rocks.

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ON CHANGES OF ATMOSPHERIC PRESSURE IN NORTH AMERICA

IN order to arrive at a clear understanding of the complex phenomena of periodic or non-periodic climatological changes—and the effect they have on the yield of crops—I found it necessary to approach these problems in a very systematic way.

It seemed to me that two kinds of investigations had to be made simultaneously.

Firstly, the research of the meteorological causes having affected the crops, during different years in different countries. In the case of the United States it would be easy to draw conclusions from the great amount of information collected and published by the de-