

largely that of the high plains and the existence of this species in our flora is not unusual. The Black Mesa country, consisting of large buttes of black larval rocks, has only been sparsely botanized and such interesting plants as *Pinus edulis*, *P. ponderosa* and *Juniperus monosperma* abound there. It is without question one of the most thrilling regions, botanically, in the whole state. Each of the authors has made one trip to the area, though on separate occasions, and the collections are still to be identified. Many new records for the flora are anticipated as our studies progress.

TRAGOPOGON MAJOR—A CORRECTION

The junior author reported this plant as *T. pratensis*¹, having referred his specimen to that species because of its yellow flowers. Since more material has come to our attention, a closer study has indicated that an error was made. The cited specimen has fistulose peduncles and long involucre bracts which *T. pratensis* does not have. Because of these characteristics and its yellow flowers it could not be either of the two species listed in the floras and manuals (*T. pratensis* and *T. porrifolius*). Mr. Weatherby of the Gray Herbarium very kindly identified the plant as *T. major*, "a species of central Europe recorded as an escape in various parts of the United States." Since the original collections in the state fairgrounds three years ago, several additional stations east of Oklahoma City have been found.

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THE FRUIT OF *DIRCA PALUSTRIS*.—In a recent most interesting paper Dr. Rogers McVaugh² challenges the accounts in current manuals of the drupe of *Dirca palustris* as "ovoid, reddish" or "red, oval-oblong", etc., on the basis of his observation of a specimen cultivated at Kinderhook, New York, this specimen producing drupes "somewhat spindle-shaped, pale green . . . with a very slight yellowish (not reddish) tinge." He assembles an array of citations showing that most of the earlier authors did not know the fruit but that Humphrey Marshall (1785) had

¹ RHODORA 42: 501, 1940.

² McVAUGH, *The Fruit of the Eastern Leatherwood*, *Castanea*, vi. 83-86 (1941).

described it, presumably from southeastern Pennsylvania, as "somewhat yellowish when ripe", that Bigelow in 1818 described it as "oval, acute, red", that in 1824 Torrey said "yellowish when ripe" (the exact phrase of Marshall); while Wood (1845), Gray (1848) and Chapman all say "red" or "reddish". And although he finds in the herbaria at Washington that "In nearly all cases the dried fruits, and especially the younger ones, have a suggestion of reddish color. This color is thought to have come about as a result of the drying process and may well have been the basis for the early reports of 'red' or 'reddish' fruits for this species."

The latter proposition might seem to dispose of the matter; but rather vividly remembering the reddish or purplish drupes as known to me in Maine when a boy, I have looked up some authors who certainly knew or know *Dirca* as it occurs in the woods. McVaugh refers to the infrequent fruiting of the shrub. Nevertheless, a good proportion (36 sheets) of the material before me from Quebec, Ontario, New England, New York, Michigan, Wisconsin, Minnesota and northeastern Iowa has well-formed and fully grown or ripe fruit. Throughout this region, furthermore, botanists who knew or who know plants in the field pretty generally report the ripe fruit of *Dirca* as red. McVaugh's cultivated specimen is the only one in this northern area which I have found definitely recorded as yellowish, although Mr. Bayard Long has often urged me, in Virginia, to show him *red* fruits, since in his experience they drop, fully ripe, when green or merely tinged with yellow. Jacob Bigelow and John Torrey stand out among American botanists as accurately describing plants from field-knowledge of them. Not only in *Florula Bostoniensis*, quoted by McVaugh, but in his very detailed *Medical Botany*, Bigelow, who with his student, Dr. John Locke and others, conducted chemical and pharmaceutical studies of the plant, including experiments with "A medical student who took several of the berries [and] found that they produced nausea and giddiness" (Bigel. Med. Bot. ii. 158 (1818)), described it definitely as red. Bigelow knew it to be red; the experimenting student "saw red". Similarly, in his very detailed account in his *Flora of the State of New York*, ii. 163 (1843), Torrey, there not quoting from Marshall, said "Fruit . . . reddish when

ripe." Similarly Alphonso Wood, who lived where *Dirca* abounds, said (1845), as already quoted by McVaugh, "Drupe oval (reddish)", and L. C. Beck, Bot. ed. 2: 307 (1848) said "reddish when ripe". Going outside New England and New York we find Victorin, who has many times collected *Dirca* in fruit, saying "Fruit: un drupe rouge, ovoide oblong" (Fl. Laurent. 362); Clements, Rosendahl & Butters, describing the shrub of Minnesota in Minn. Trees and Shrubs, 209 (1912), said "drupe oval-oblong, red"; while, writing from Iowa, Pammel, Man. Poisonous Pl. 643 (1911), definitely said "drupe red, oval, oblong". It is not reasonable to believe, as one might perhaps infer from the article which induced this note, that all the field-botanists, Jacob Bigelow, John Torrey, Alphonso Wood, L. C. Beck, Asa Gray, Clements, Rosendahl, Butters, Pammel, Victorin, my student, Mr. Bernard Boivin, who, when asked the color of the fruit near Montreal, promptly responded "purplish", and myself have mistaken yellow for purple or red. It is obvious that, whereas northward the ripe fruit generally becomes reddish or purplish, southward it often or always lacks this color and may become yellowish.

Furthermore, although McVaugh describes and illustrates the mature fruit as "spindle-shaped", with prolonged base and tip, the ripe fruits in the Gray Herbarium and that of the New England Botanical Club vary from slenderly rhomboid, with tapering tips, to thick-ellipsoid, with rounded ends, or obovoid, with broadly rounded summit, or even subglobose, with summit and base strongly rounded. The shape of the fruit seems to have no special geographic localization; the color possibly may have geographic significance. Here is an opportunity for close observation by those situated to make the observations.—M. L. FERNALD.

THE BROAD-LEAVED SPECIES OF POTAMOGETON OF NORTH AMERICA NORTH OF MEXICO

E. C. OGDEN

(Continued from page 105)

5. *P. PULCHER* Tuckerman

RHIZOME buff, often with dark red spots, .5–1 mm. in diameter. **STEM** simple, terete, 1–2.5 mm. in diameter, usually con-



Fernald, Merritt Lyndon. 1943. "The Fruit of *Dirca palustris*." *Rhodora* 45, 117–119.

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