

and sharply toothed, acute; the cauline few and sessile; involucre small, slightly bracteolate, smooth and blackish-green, of few scales in about 2 series; pappus gray and scabrous; achenia not attenuate at the summit; flowers white? *Nutt. in trans. Amer. phil. soc. (n. ser.) 7. p. 447.*

St. Barbara, California, *Nuttall.*—This plant is unknown to us; and only a single specimen was collected.

189. NABALUS. *Cass. dict. 34. p. 94 (1825); Hook. fl. Bor.-Am. 1. p. 293.*

*Harpalyce, Don (1829), not of DC.*—Species of *Prenanthes, Linn.*

Heads several-(5-30-) flowered. Involucre cylindrical, of 5-14 linear scales in a single series, and calyculate with several short accessory scales. Receptacle naked. Branches of the style much exerted. Achenia linear-oblong, cylindraceous, striate or grooved, smooth, not contracted at the apex. Pappus of copious straw-color or brownish scabrous capillary bristles, somewhat fragile.—Perennial (North American) herbs; the erect leafy stem arising from a fusiform simple or branched tuber, which is extremely bitter to the taste. Leaves entire, or variously lobed. Head racemose or paniculate, usually nodding. Flowers whitish, ochroleucous, cream-color, or purplish.

§ 1. *Heads pendulous: involucre calyculate, few-several-flowered, glabrous (rarely more or less hairy). (Leaves very variable in the same species.)*

1. *N. albus* (Hook.): nearly glabrous, slightly glaucous, stem corymbosely paniculate at the summit (usually purplish); leaves angulate-hastate, irregularly toothed, sinuate-incised, or sometimes either palmately or somewhat pinnately 3-5-lobed or parted (the lobes or undivided leaves mostly obtuse, mucronate); the lower petioled; the uppermost usually oblong, subsessile; heads in short spreading racemes or panicles, somewhat corymbose; involucre (glaucous and usually purplish) of about 8 scales, 8-12-flowered; pappus deep cinnamon-color.—*N. albus* & *N. serpentarius, Hook. l. c.* (in part, and as to syn.) *N. suavis, DC. l. c.* *N. trifoliolatus, Cass. in dict. sci. nat. 34. p. 95.* *Prenanthes alba, Linn. hort. Cliff. p. 383, & spec. l. c.* (excl.  $\beta$ .); *Michx. fl. 2. p. 83; Bot. mag. t. 1079; Pursh, l. c.; Bigel. fl. Bost. ed. 2. p. 286 (partly); Darlingt. fl. Cest. p. 444 (partly).* *P. suavis, Salisb. parad. Lond. t. 85.* *P. rubicunda, Willd. spec. 3. p. 1537 (ex herb.),* excl. syn. *P. Miamiensis?* *ovata, & proteophylla, Riddell, l. c.* *Chondrilla alba, Lam.*

$\beta$ . *Serpentaria*: cauline leaves on slender petioles, deeply sinuate-pinnatifid or 3-parted, the terminal lobe 3-cleft, often sparsely ciliate with rough hairs.—*Prenanthes Serpentina, Pursh, fl. 2. p. 499, t. 24.* *Harpalyce Serpentina, Don, in Edinb. new. phil. journ. 6. p. 305; Beck, l. c.*

Open grounds and borders of woods, Newfoundland! Canada! and Northern States! to the Upper Mississippi! and the Mountains of the Southern States! Aug.-Sept.—A stouter plant than *N. altissimus*; the stem sometimes spotted. Leaves very variable, pale beneath; the margins mostly somewhat scabrous and ciliate. Heads half an inch or more in length. Achenia scarcely striate. Corolla white or ochroleucous, sometimes tinged with purple.—*White Lettuce, Lion's Foot, Rattlesnake-root.*

2. *N. altissimus* (Hook.): glabrous or nearly so; stem virgate; leaves (membranaceous) all petioled, either undivided or the lower palmately 3-5-

cleft, parted, or even divided; the lobes or leaves acuminate, repandly toothed or denticulate; heads in small axillary and terminal clusters, forming an elongated virgate panicle; involucre slender (greenish), of 5 scales, 5-6-flowered; pappus dirty white, or straw color.—*Hook. ! fl. Bor.-Am. 1. p. 294; DC. prodr. 7. p. 241 (ex syn.) (N. albus & N. serpentarius, Hook. l. c., at least in part, fide spec. !)* *Sonchus elatus, &c. Pluk. ! alm. t. 317, f. 2. Prenanthes altissima, Linn.\* spec. ed. 2. p. 1121 (ex char. & syn. Pluk.); Pursh, fl. 2. p. 498; Ell. sk. 2. p. 256. P. parviflora, Rid-dell, syn. Western plants, p. 50. Chondrilla altissima, Lam. dict. 2. p. 78. Harpalyce altissima, Beck, bot. p. 167.*

*β. ovatus:* cauline leaves nearly all ovate, abruptly contracted into winged petioles.

*γ. cordatus:* leaves mostly cordate, on slender petioles.—*N. cordatus, Hook. l. c. Prenanthes cordata, Willd. ! hort. Berol. t. 25; Pursh, l. c; Ell. l. c.*

*δ. deltoideus:* leaves deltoid, strongly repand-toothed; the upper often cordate, on margined petioles; the radical and lowest cauline triangular-hastate, sometimes 3-parted.—*N. deltoideus & N. cordatus ! DC. l. c. Prenanthes deltoidea, Ell. ! sk. 2. p. 257.*

*ε. dissectus:* leaves all 3-parted or divided; the segments either entire or deeply 2-3-cleft; the lobes narrowly lanceolate or linear.

Woods, Newfoundland! Canada! and Northern States! to Kentucky! and the mountains of Georgia! Aug.-Sept.—Stem 3-5 feet high, rather slender, either simple or sparingly paniculate at the summit, sometimes pubescent below, as well as the midrib and margins of the leaves. Corolla yellowish or greenish-white.—A well-marked species, notwithstanding the extremely variable foliage, of which we have enumerated the most striking forms.

3. *N. Fraseri* (DC. ! l. c.): glabrous or slightly puberulent; stem corymbose-paniculate at the summit; leaves mostly deltoid, usually somewhat scabrous, variously and often pinnately 3-7-lobed, and contracted into winged or margined petioles (the lobes short and mostly sinuate-denticulate); the upper subsessile, oblong-lanceolate, often undivided; racemes paniculate; involucre (greenish or slightly tinged with purple,) either glabrous or with a few scattered hairs, of about 8 scales, 8-12-flowered; pappus straw-color.—*N. trilobatus, Cass. in dict. sci. nat. l. c. ? N. Fraseri, N. trilobatus & N. serpentarius β. ? DC. ! l. c. Prenanthes folio scabro inciso . . . floribus dilute luteis, &c., Clayt. ! in Gronov. fl. Virg. 3. p. 133. P. rubicunda, Pursh, fl. 2. p. 499, excl. syn. P. alba, Ell. sk. 2. p. 259.*

*β. integrifolius:* leaves thickish, lanceolate-oblong, acute or obtuse, denticulate, or sharply and irregularly toothed; involucre often somewhat hairy.—*N. integrifolius, Cass. l. c.; DC. ! l. c.*

*γ. barbatus:* leaves thickish, lanceolate or oblong, mostly sessile; the upper often somewhat auriculate-clasping, sinuate-toothed or nearly entire; racemes paniculate; involucre (12-15-flowered) hirsute when young with long purplish hairs!—*Prenanthes crepidinea, Ell. sk. 2. p. 259, not of Michx.*

Dry sterile or sandy soil, from Florida! and Alabama! to New York! Connecticut! and Newfoundland? *β.* Long Island, New York! and North Carolina! *γ.* Saluda Mountains of Carolina, *Dr. Macbride.* Alabama, *Mr. Buckley!* Sept.-Oct.—Stem 1-4 feet high, usually much branched: the leaves exceedingly variable. Flowers cream-color or ochroleucous.—This species, most abundant in the Southern States (where it is

\* The specimens of *Prenanthes altissima* and *P. alba* are evidently transposed in the Linnæan herbarium!