

least hispid and narrowest-leaved form, nearly approaching the preceding species, and distributed as *Eritrichium oxycaryum*, coll. April 6, 1882); Colusa Co., 1884, *Mrs. Layne-Curran*, a depauperate and very slender form. The spreading bristly hairs sometimes abound on the stems as well as the leaves.

++ ++ *Eutypica*: nuculæ sæpius 4 fertiles, gynobasi angustæ elevatæ adfixæ, haud areolatæ,

= Intus tota longitudine sulco tenui basi nec furcato nec in areolam explanato percursæ: herbæ humiles, laxæ vel diffusæ, pilosohispidæ; foliis lineari- vel oblongo-spathulatis; spicis cymæ simplicis vel bipartitæ laxifloris vel interruptis basi sæpius foliatis, vel floribus primariis alaribus et pseudo-axillaribus; calycibus fructiferis lin. 2 longis; corollis minimis.

K. LEOCARPA, Fisch. & Meyer, Ind. Sem. 1841, 52; A. DC. Prodr. x. 134. *Echinosperrum leiocarpum*, Fisch. & Meyer, op. cit. 1835, 36. — Nuculæ parvæ (vix ultra semilineam longæ) ovatæ, acutæ, paullo obcompressæ, fere tota longitudine sulci recti gynobasi subulatæ adfixæ. — Western California, from Monterey (where Dr. Parry collected a low and rather stout form, with oblong leaves) northward, probably to Oregon and Washington Territory. But the only determinable specimens in our herbarium, except early cultivated ones, directly or indirectly from the originals raised at St. Petersburg, were collected by Dr. Kellogg on the Californian coast, either near San Francisco or farther northward. Under the name of *Eritrichium leiocarpum*, first used by S. Watson in Bot. King Exped. 244 (who, however, did not collect the genuine plant), three or four smooth-fruited species have been confounded. These may now, upon the re-establishment and extension of the genus *Krynitzkia*, be distinguished mainly by characters of the fruit, which seem to be good, although rather fine. In the present and the following species the slender ventral groove by which the nutlet is attached runs to its very base, without the furcation of the next succeeding species, and without any expansion into a scar.

K. AFFINIS. Nuculæ lineam vel ultralineam longæ, turgidæ, subtriculatæ (pericarpio tenuiori), ad medium usque gynobasi tenuiter pyramidatæ adfixæ, sepalis lineari-lanceolatis aut paullo aut dimidio breviores. — On the eastern side of the Sierra Nevada, California to Washington Terr. and Idaho. The specimens now in hand are: E. side of the Cascades near lat. 49°, *Ljall*, 1860. Beaver Cañon, Idaho, *Watson*, 1880. Falcon Valley, Washington Terr., *Suksdorf*,

1880. Oregon, without locality, *Howell*. Near Donner Lake, *Torrey*, 1865. Strong's Cañon, near Truckee, *Mrs. Layne-Curran*, 1884. It has, with others, passed under the name of *Eritrichium leiocarpum*, and in appearance is most like the original *Krymitzka*.

— = Nuculæ faciebus interioribus fere planis exteriori convexiuscula pl. m. trigonæ, angulo interiori sulco tenui juxta basim divaricato-furcato sed clauso: herbæ erectæ, sæpe pedales; spiciis cymæ bene evolutæ (simplicis vel conjugatæ) ebracteatis.

**K. TORREYANA.** *K. leiocarpa*, Torr. Bot. Mex. Bound. 142, at least in part. *Eritrichium leiocarpum*, Watson, Bot. King Exped. 244, in large part; Gray, Proc. Am. Acad., & Syn. Fl. ii. 194, in large part and by char., excl. syn. Fisch. & Meyer and Dougl. — Hirsutispidula; calyce (præter pubem villosam) setis pungentibus patentissimis hispido, fructifero sepalis sursum attenuatis; corollæ pl. m. exsertæ limbo lin. 1–2 lato; nuculis (lineam longis) ovatis acutis usque ad medium tantum gynobasi subulato-pyramidatae adfixæ. — Nearly throughout California, and east to Nevada and southwestern parts of Idaho. This species, now distinguished from its allies, may well bear the name of Dr. Torrey, who was an early investigator of this group, and who himself more than once collected it, whether or not it be the one he had mainly in view as *K. leiocarpa* in his references in Bot. Mex. Boundary, &c. But what he so called in Pacif. R. Rep. iv. 124 is *K. ozycarpa*. The calyx varies in length, &c., evidently passing into

Var. CALYCOSA. Forma sæpius robusta, congestiflora; sepalis calycis fructiferi pl. m. elongato-attenuatis lin. 2–3 longis rigidulis, costa validiori. *Eritrichium leiocarpum*, Watson, Bot. King Exped. l. c., quoad "calyx-lobes linear, becoming much elongated." — E. Humboldt Mountains, Nevada, *Watson*, and a form approaching it, coll. in Nevada by *J. D. Hooker* and *A. Gray*, 1872. Lake Co., California, *V. Rattan*, 1884, a form seemingly abnormal by the capitate-congested inflorescence and much prolonged sepals.

**K. WATSONI.** Minus hispidula, gracilis; sepalis calycis fructiferi vix lin. 2 longi parce setoso-hispidi lanceolatis parum attenuatis; corolla parva; nuculis (lineam longis) angustis subtriquetris circumscriptione fere oblongo-lanceolatis tota fere longitudine gynobasi filiformi-subulatae adfixis. — Wahsatch Mountains, Utah, at 6,000 feet, *S. Watson*, 1869, a part of *Eritrichium leiocarpum*, Bot. King Exped. l. c.

↔ ↔ ↔ *Asperulæ Anisocaryæ*: nuculæ sat angustæ, punctis creberrimis scabræ, sæpius heteromorphæ, ventre sulco inferne ampliatio