
The *Psoralea esculenta* Series of Oklahoma

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The *Psoralea esculenta* series is represented in Oklahoma by four species. Three of these previously have been reported: *Psora'ei esculenta* (Butler, 1878; Pursh, 1814; Waterfall, 1952), *Psoralea hypogaea* (Torrey and Gray, 1838; Waterfall, 1952; Wood, 1878) and *Psoralea scaposa* var. *breviscapa* (Shinners, 1951; Waterfall, 1952). The fourth species, here newly recorded, is *Psoralea subulata* Bush (1906). Specimens have been seen from Logan and Pottawatomie counties. All of the species discussed belong to the section *Pediomelum*, a group considered as a genus by some authors.

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KEY TO PLANTS IN FLOWER

- A. Plants 1.5-3.5 dm. high; hirsute throughout except tops of leaflets; leaves not clustered near base; leaflets oblanceolate, 3-5 cm. long, 1-1.5 cm. broad; spike dense, 3-8 cm. long; flowering stalk exceeding leaves; upper two calyx lobes united about half their length.....1. *P. esculenta*
- A. Plants shorter, 1-2 dm. high; hirsute throughout except thinner on tops of leaflets; leaves clustered at base and exceeding the flowering stalk; leaflets obovate, oblanceolate, linear, or lanceolate; spike dense, 1-2 cm. long.
- B. Peduncles with widely spreading hairs; leaflets 1-3 cm. broad, obovate, obtuse, or rounded at tip; plant 1-2 dm. high; leaves exceeding flowering stalk 3-5 cm.; seeds smooth.....2. *P. subulata*
- B. Peduncles and petioles with appressed or closely ascending hairs; leaflets narrower, 4-10 mm. broad; seeds reticulate.
- C. Leaflets linear, widest near base, 5-7 mm. broad; peduncles much shorter than petioles, scarcely longer than spike3. *P. hypogaea*
- C. Leaflets linear, widest near tip or middle; peduncles 1-3 cm. long, mostly less than half as long as the petioles.....4. *P. scaposa* var. *breviscapa*

1. *Psoralea esculenta* Pursh.

Pediomelum esculentum (Pursh) Rydberg.

Sixteen specimens seen.

Oklahoma distribution by counties: Carter, Comanche, Kiowa, Murray, Oklahoma, Osage, Payne, Pontotoc, Rogers. NOTE: The Butler specimen (not seen) was from Atoka County.

General distribution: Manitoba to Alberta, Wyoming, Oklahoma, Missouri, and Wisconsin.

2. *Psoralea subulata* Bush.

Pediomelum subulatum (Bush) Rydberg.

Three specimens seen.

Oklahoma distribution by counties: Logan, Pottawatomie.

General distribution: Texas, Louisiana, and Oklahoma.

3. *Psoralea hypogaea* Nutt.

Pediomelum hypogaeum (Nutt.) Rydberg.

Four specimens seen.

Oklahoma distribution by counties: Cimarron, Ellis, Roger Mills.

General distribution: Nebraska to Montana, Utah, New Mexico, Colorado, and Oklahoma.

4. *Psoralea scaposa* (Gray) Macbr. var. *breviscapa* Shinnars.

Four specimens seen.

Oklahoma distribution by counties: Jackson, Woods.

General distribution: Plains area of Texas and Oklahoma.

NOTE: *P. scaposa* var. *scaposa* has been noted in northeast Wise County, Texas (Shinnars, 1951) within 35 miles of the Red River and could therefore be expected to occur in Oklahoma.

LITERATURE CITED

- Bush, B. F. 1906. Some New Texas Plants. Rept. Missouri Bot. Garden 17: 120.

- Butler, G. D. 1878. A List of Some of the Most Interesting Species of Plants Collected in the Indian Territory. Bot. Gaz. 3: 66.
- Pursh, F. 1814. Fl. Am. Sept. 2: 475. London.
- Shinners, L. H. 1951. The Texas Species of *Psoralea* (*Leguminosae*). Field and Lab. 19: 24-25.
- Torrey, J. and Gray, A. 1838. Flora of No. America 1: 302. New York.
- Waterfall, U. T. 1952. A Catalogue of the Flora of Oklahoma. Stillwater: The Research Foundation, Oklahoma A.&M. College.
- Wood, A. 1878. Bot. Gaz. 3: 50.
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