WRITTEN FINDINGS OF THE WASHINGTON STATE NOXIOUS WEED CONTROL BOARD

Scientific Name: Zygophyllum fabago

Common Name: Syrian bean-caper

Legal Status: Class A

Description and Variation: Syrian bean-caper is a succulent perennial forming compact multi-branched shrubs - decumbent to ascending. Mature shrubs may grow to three feet in height and spread 3 feet in diameter. Compound leaves are fleshy, glabrous, opposite and bifoliolate. Flowers are white to cream with salmon - colored markings. Five sepals, five petals, 10 stamens, style and stigma; fruit a 4-5 celled capsule. Seeds are brown, rough with a slight kidney bean shape. The plant develops a perennial tap root up to several inches in diameter with multiple branches from the crown.

Economic Importance: Flower buds are used as a caper substitute. Many of the species in this family are adapted to dry and or salty environments, closely related to puncture vine with potential similar invasiveness. Populations in Washington are slowly spreading away from the homesteads with which they are usually associated.

Geographical Distribution: Small populations in Adams County on the Lind-Warden Road and Grant County near Ruff are known, while a much larger population is present in northern Okanogan County approximately 1 1/2 miles from Nighthawk.

Adams County: T17N, R31E, section 17 (NE1/4 SE1/4 SE1/4).

Okanogan County: T40N, R25E, Section 12.

Grant County:
a). T19N, R30E, section 1, (NW1/4), Ruff, WA.
b). intersection of 7th and Division, Moses Lake, WA.
c). historical collection, W.S.U. Herbarium, Ephrata, WA, collected by H.W. Reaugh, August 5, 1916.

Lincoln County: historical collection, W.S.U. Herbarium on King Ranch (near Odessa?), collected by Ben Roche', July 25, 1964.

Yakima County: historical collection, W.S.U. Herbarium under Sunnyside Canal, 1/2 mile east of Outlook Pump, collected by L. W. Smith, August 14, 1941

Habitat: Prefers dry and or saline soils.

History: The earliest record of collection in Washington dates back to August 5, 1916 from Ephrata, Wa. The Okanogan population

Zygophyllum fabago continued:

was suppressed by former landowner, but when land exchanged hands and new owner did not control, population came back with vengeance, according to Okanogan County Weed Board staff and Richard Old.

Growth and Development: Perennial

Reproduction: Seed, caudex, and (rhizome -- Okanogan population)

Response to Herbicides: Tordon 22K + 2,4-D + surfactant effective. Attempts to control with 2, 4-D, Banvel + surfactant have not been particularly effective. Applications of 2,4-D + surfactant have not been considered effective. Applications of Rodeo, Escort + 2,4-D, and Escort in Okanogan County have not been monitored long enough to judge efficacy.

Response to Cultural Method: Dig up - follow up not verified.

Biocontrol Potentials: None known.

References:

Computer Printouts on Zygophyllum fabago. 1989. Dialog Information Services, Inc.

Davis, P.H., ed. 1975. Flora of Turkey and east Aegean Islands. Edinburgh Univ. Press. pp. 491-492.

Harrington, H.D. 1954. Manual of the Plants of Colorado. pp. 356.

*Heywood, V.H. 1978. Flowering Plants of the World. Mayflower Books, Inc. N.Y. *

Hichcock C. Leo and Arthur Cronquist. 1973. Flora of the Pacific Northwest. University of Washington Press. Seattle.

Johnson, J. 1974. Syrian bean caper. Calif. Dept. of Food and Agric. Det. Man. 6:29.

Muenscher, W.C. 1955. Weeds (2nd ed.) The Macmillan Company, New York. pp. 290-291.

"Noxious Weed Facts, Recommendations For Control." April 1990, Washington State University-Spokane County.

Phatak, V.G. Embroyology of Zygophyllum coccineum L. and Z. fabago L. Proc. Ser. C. Biol. Med. Sci. 74 (4):379-397.

Flora Europaea. page 205.

*indicates presence in W.S.N.W.C.B. office -- available upon request

See also Correspondence and Miscellaneous Files.

Notes: A Class "A" noxious weed in California and on the Idaho Noxious Weed List.

9/88 conversation with Rich Old
- Small populations in Othello and Warden
- big patch in Northern Okanogan County
- former landowner beat it down or suppressed it to only a few plants, but when control work stopped, it came back with a vengeance
- an invasive perennial, not an annual

6/89 conversation with Jan Stiverson
- Tordon 22K pqt./acre; 2,4-D added & good surfactant (very waxy, fleshy leaf)
-effective--control needs to be consistent/ or comes back
- was 2 acres -- suppressed to 20 x 20' now spreading out again because no control work has been done - past two years.

6/28/89 conversation with Daryl Jackson
- 1 qt. Tordon/ 1 qt. Round-up effective control on Ruff pop.

Information Sources:

George Beck (Colorado) (303) 491-7568

Nate Dechoretz (916) 445-0984
CDFA
(replaced Les Sonder)

Riverside County: Jim Wallace (714) 275-3000
Merced County: (209) 385-7431
Kern County: (805) 861-2306

Doug Barbe (906) 445-4521
CDFA
1220 N. St.
Sacramento, CA 95814

collection in New York Botanical Garden:

Minidoka, Idaho
J.H. Christ 4905
June 27, 1934
remarks: Harold Tucker

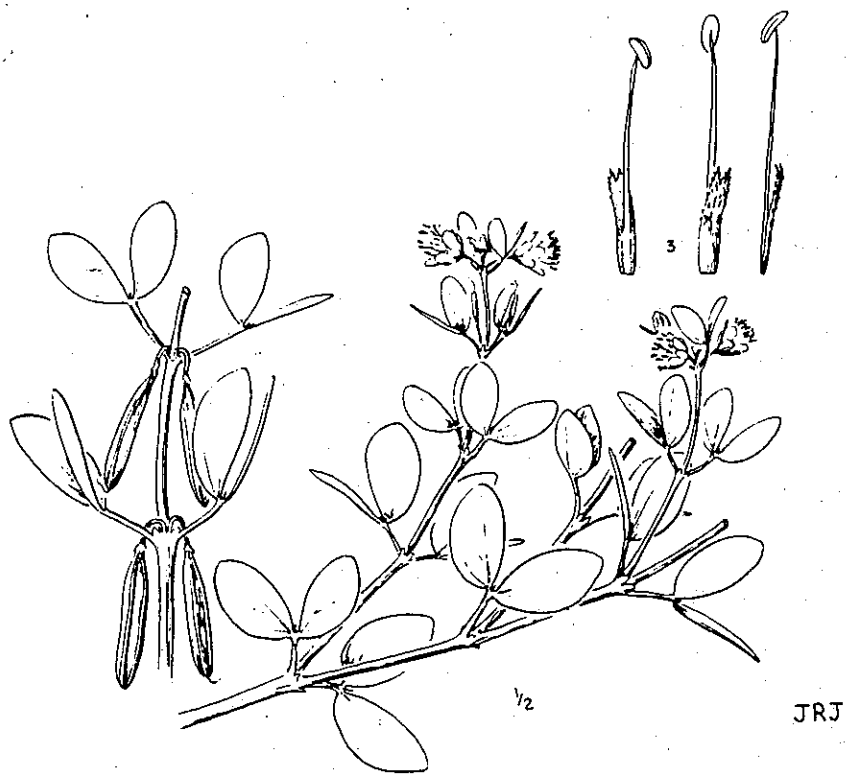
Talked to:
John Preski (212) 220-8626, 8638
New York Botanic Garden

Bronx, New York 10458
pollen study:

Vince Teppe
Terry Griswold
bee lab, Utah State Univ. (801) 750-2526

Past locations in California; Doug Barbe, CDFA
Stanislaus: 1931
Merced
Fresno
Tulare
Kern
Los Angeles
Riverside
Imperial

current: Blythe



Zygophyllum fabago

Vascular Plants of the Pacific Northwest
Vol 3. p 393.