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*** START OF THE PROJECT GUTENBERG EBOOK HYBRIDIZATION
BETWEEN TWO SPECIES OF GARTER SNAKES ***

Hybridization Between Two Species of Garter Snakes

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BY

HOBART M. SMITH

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Hybridization Between Two Species of Garter Snakes

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By

HOBART M. SMITH

The chief characters distinguishing *Thamnophis radix* (Baird and Girard) and *T. marciana* (Baird and Girard) in southern Kansas are:

<i>marciana</i>	<i>radix</i>
1. lateral light line involving only the 3d scale row anteriorly.	1. lateral light line involving rows 3 and 4 anteriorly.
2. dorsal light line without distinct edges, varying in width from less than 1 to nearly 3 scale rows, at various places on body.	2. dorsal light line with straight, even edges, 1½ scale rows wide.
3. several anterior lateral spots fused across lateral light stripes.	3. <i>usually</i> no anterior lateral spots fused across lateral light stripes.
4. 2 posterior upper labials not light-centered, unlike others.	4. 2 posterior labials light-centered, like others.
5. A well-developed, white, black-edged crescent behind angle of jaws (postrictal crescent).	5. typically no well-developed postrictal crescent.

Typical specimens of *radix* are available from several localities in Morton County of southwestern Kansas (Spring Creek; twelve miles and eighteen miles north of Elkhart; Elkhart); from the State Lake and Meade in Meade County; from Hunters, Harper County; Coolidge, Hamilton County; and Ingalls, Gray County.

Typical *marciana* is available from Spring Creek, Morton County; Liberal, Seward County; and Clark County (no locality). An overlap of range with *radix* is evident, and from Spring Creek in Morton County typical specimens of both species are available. Accordingly, at present, I conclude that the two forms are correctly regarded as distinct species.

Yet there is a rather marked tendency of *radix* to approach the characters of *marciana* in southwestern Kansas. Two specimens (one from Morton County, one from Gray County) have the dorsal stripe slightly broken up by infiltration of the ground color onto the edges of the scales. All southwestern *radix* develop the distinct postrictal crescent so characteristic of *marciana*, and occasional specimens fail to have light centers in the last two labials. Finally, one specimen from Meade, Meade County (No. 5434), appears to be actually intermediate, and may be regarded as a hybrid. The middorsal stripe is not sharp-edged; the lips are barred exactly as in *marciana*, the postrictal crescent is well defined, and the lateral light stripe extends onto the fourth scale row only very slightly. I refer the specimen to *T. radix* on the basis of the middorsal light stripe which still is not as irregular as in *marciana*, upon the nature of the lateral dark spots (not fused), and upon the slight extension of the lateral light stripe onto the fourth scale row. Yet the specimen is

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definitely atypical of *radix*; no other of the 135 specimens examined deviates so strongly from the normal condition.

Because the two kinds of garter snakes in question maintain their distinctness at other places where they occur on common ground, it seems best to interpret specimen No. 5434 as a hybrid rather than an intergrade.

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