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The correct name for *Cyperus cayennensis* (*C. flavus*), Cyperaceae

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TABLE 2.—Characteristics (mean values and standard deviations) of seed production and morphology of willow and pink smartweed plants.

Variable	Species ¹	
	Willow Smartweed (N=271)	Pink Smartweed (N=191)
Seeds per plant (g)	7.6±9.2	3.4±4.4
Biomass (g)	44±44	16±14
Ratio (Seed:Biomass)	1:5.8	1:4.7
Height (cm)	142±48	107±32
Branch height (cm)	55±56	29±31
Number of branches	5.2±3.1	7.7±3.9

¹All comparisons between species are significantly different. ($P < 0.0001$).

willow and pink smartweed in their respective solid vegetation types is similar to Timson's report (J. Ecology 54:815-821, 1966) on the morphological characters of *P. hydropiper*. However, our results of a greater branching height for solid stands conflicts with Timson's results and those of Simmonds (J. Ecology 33:121-131; 132-139, 1945) for *P. lapathifolium* and *P. persicaria*.

Seed production of willow smartweed was best correlated with biomass ($r = 0.72$, $P < 0.0001$), the number of lateral branches ($r = 0.50$, $P < 0.0001$) and plant height ($r = 0.34$, $P < 0.0001$). Seed production for pink smartweed was best correlated with the number of lateral branches ($r = 0.51$, $P < 0.0001$) and biomass ($r = 0.48$, $P < 0.0001$). Predictably, taller plants had greater biomass, more lateral branches and produced more seed than smaller plants.

There were strong differences ($P < 0.0001$) between willow and pink smartweed for the four morphological variables and seed production (Table 2). Willow smartweed was taller, with a greater branching height and with twice as much biomass as pink smartweed. Pink smartweed had more lateral branches than did willow smartweed. More importantly, seed production per plant of willow smartweed (7.61 g) was double that of pink smartweed (3.41 g). However, the seed:biomass ratio was similar for willow (1:5.8) and pink (1:4.7) smartweed.

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THE CORRECT NAME FOR *CYPERUS CAYENNENSIS* (C. FLAVUS), CYPERACEAE.—The species referred to as *Cyperus cayennensis* by Fernald (Gray's Manual of Botany, 8th ed., American Book Co., New York, 1950), *C. flavus* by Kükenthal (Pflanzenreich 4(20):530, 1935-36), and *C. huarmensis* by Correll and Johnston (Man Vasc. Pl. Tex., 1970) is widespread in the New World. It occurs from Texas and New Mexico south through Mexico and Central America (Tucker, Syst. Bot. Monogr. 2:59, 1983), the West Indies and South America as far south as northern Argentina (Pedersen, Cyperaceae [in A.L. Cabrera, ed.], Flora de la Provincia de Buenos Aires, Buenos Aires, I.N.T.A., 1970). The species has been collected on ballast in New Jersey and Louisiana (Horvat, Cath. Univ. Amer. Biol. Ser. 33:34-37, 1941) and is adventive in Australia (K. L. Wilson, personal communication).

The combinations *C. cayennensis* (Lam.) Britton and *C. flavus* (Vahl) Nees are illegitimate, because of the prior publication of the names *C. cayennensis* Willd. ex Link (1820) and *C. flavus* Presl (1828). The name *C. huarmensis* (H.B.K.) M. C. Johnston has also been used for this species (Correll and Johnston, *ibid*). However, the oldest available epithet for this species is *Mariscus aggregatus* Willd., based on sheet no. 1426 of the Willdenow Herbarium. Kükenthal, who worked at the Berlin Herbarium, placed *M. aggregatus* in the synonymy of *C. flavus*. Examination of the type (IDC microfiche edition) shows it to be a plant of the species treated as *C. cayennensis* and *C. flavus*. The sessile ovoid spikes characteristic of this species (Tucker, *ibid*) are clearly visible. In addition, Boeckeler, a monographer of the Cyperaceae, has annotated this sheet as "*Mariscus flavus*," in his distinctive handwriting. Thus, the correct name for this species is *Cyperus aggregatus*, with the following synonymy.

Cyperus aggregatus (Willd.) Endl., Cat. horti Vindob. 1:93. 1842. *Mariscus aggregatus* Willd., Enum. hort. Berol. 70. 1809. *C. flavus* var. *aggregatus* (Willd.) Kükenth., Pflanzenreich 4(20):532. 1936. Type: based on a cultivated plant, Herb. Willdenow no. 1426 (B; IDC microfiche edition Herb. Willdenow!).

Kyllinga cayennensis Lam., Tabl. Encycl. méth. 1:149. 1791. *C. cayennensis* (Lam.) Britt., Bull. Dept. Agric. Jamaica 5:8. 1907. Type: French Guiana. *Von Rohr* (P), non *C. cayennensis* Willd. ex Link (Jahrb. Gewächsk. 1(3):84. 1820).

Mariscus flavus Vahl, Enum. pl. 2:374. 1806. *C. flavus* (Vahl) Nees, Linnaea 19:698. 1847. Type: "America meridionalis"; *von Rohr* (C!), non *C. flavus* Presl (Reliq. Haenk. 1:176. 1828).

M. huarmensis H.B.K., Nov. gen. sp. 1:214. 1816. *C. huarmensis* (H.B.K.) M. C. Johnst., Southwest. Nat. 11:124. 1966. Type: Perú. Huarmey et Lima, *Humboldt & Bonpland* (P).

C. obesus Liebm., Mexic. halvgr. 23. 1850. Type: Mexico. Veracruz, Consoquitla, Oct. 1841. *Liebmann 14370* (lectotype, here designated: C!).

The author thanks Professor Robert L. Wilbur for nomenclatural advice, the Gray Herbarium Library for access to literature, and the director of the Botanical Institute, Copenhagen (C), for sending type specimens.—GORDON C. TUCKER, Dept. of Botany, Duke Univ., Durham, NC 27706. (Present address: Biological Survey, New York State Museum, Albany, NY 12230).

HOME RANGE SIZE IN *HOLBROOKIA MACULATA* (IGUANIDAE) FROM SOUTHEASTERN ARIZONA.—Home range size and spacing patterns in lizards have received much attention from biologists (see *Stamps in Biology of the Reptilia* Vol. 7, C. Gans and D. W. Tinkle, eds. Academic Press pp. 265-334, 1977 for review). In only a few species (i.e., *Sceloporus undulatus* and *Uta stansburiana*) have these phenomena been studied in geographically separate and ecologically different environments. Home range size for *Holbrookia maculata* has previously been studied by Gennarao (*Herpetologica* 28:165-168, 1972) in eastern New Mexico and by Jones and Droge (*Herpetologica* 36:127-132, 1980) in western Nebraska. The purpose of the present study is to compare home range size for a population of *H. maculata* from southeastern Arizona with the data from previously studied populations, to determine percent overlap between individual home ranges, and to see if either of these change from year to year under different environmental conditions.

The lizards were studied during summer (late May through August) 1977 and 1978 at a site located 2 km W of the Arizona-New Mexico border along the Portal Road, Cochise County, Arizona. The study site consisted of a pitfall grid composed of 100 number 10 cans (155 mm x 170 mm) buried flush with the ground and covered with slightly elevated plywood boards designed to prevent the lizards from escaping and to provide shade during the heat of the day. The cans were set in 10 rows of 10 cans each spaced 10 m apart, so that the grid covered an area of 1 ha. The cans were checked twice daily (ca. 1200 h and 1900 h). These times roughly corresponded to the end of morning and evening activity periods. Upon initial capture all lizards were given a permanent identification number by toe clipping. The following data were recorded upon initial capture and all subsequent recaptures: sex, snout-vent length, length of tail base, length of regenerated tail, weight (measured with a Pesola scale, 0.1 g), and location on the grid. Several authors have commented on the problems associated with determination of home range and territoriality from can trap data (see *Stamps*, 1977 for review), however, in most of those cases can traps were infrequently checked (weekly or bi-weekly). I feel that with the frequent checking of the traps, the problem of individuals being removed from the area is minimized and probably has little effect on such characters as home range overlap and territoriality.

Home range size was determined by convex polygon method for all animals with three or more separate capture points. Since there was a significant positive correlation between number of captures and home range size, size was adjusted for number of captures using the method of Jennrich and Turner (*J. Theor. Biol.* 22:227-237, 1969).

Dominant plant species on the grid are Mormon tea (*Ephedra trifurca*) and mesquite (*Prosopis juliflora*). Subdominants are white thorn acacia (*Acacia albicans*), tarbush (*Flourensia cernua*), snakeweed (*Gutierrezia* sp.) and cowweed (*Boutela* sp.). Total ground cover is sparse and was visually estimated at about 15 to 20% except along the southern border of the grid in the vicinity of a large wash where *P. juliflora* forms a dense border. Ground cover on the grid increases slightly in late summer due to the appearance of summer annuals after the July and August rains. For a more detailed description of the site see Hulse (*Ann. Carnegie Museum* 50:353-369, 1981).