FRANKLINIELLA WELAKA, A NEW THRIPS FROM FLORIDA

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The dark-colored, leisurely river now known as the St. Johns, along whose banks continually through two centuries fought Spanish and French and English and Americans and the militia of the brief-lived Republic of Florida, each opposed or aided by Indians of the Creek tribes, enlarges itself by tribute from innumerable, cattail-rimmed lakes and swamps and forms a pendant half the length of Florida. Its form led the Indians to call it the "Chain of Lakes", or Welaka—a name perpetuated in that of the small town near which the present species was taken.

Frankliniella welaka, sp. nov.
(Figs. 1 and 2)

Closely allied to *tenuicornis*, but differing most noticeably in the much smaller size, usually paler coloration, in the much shorter and far less slender antennal segments, and the position of the interocellar setae.

FEMALE (MACROPTEROUS).—Length about 1 mm. (distended, 1.3 mm). *Color* brown (more or less blackish), darkest in fore part of head and in the last few abdominal segments; all coxae brown, all trochanters and tarsi (save for the dark cups of latter) pale yellow; femora paler than body, yellow apically and basally, shading to brown between; tibiae largely yellow, clouded with brown on the morphologically upper surface; fore wings pale yellowish, usually perceptibly darker apically, but otherwise unmarked; antennae brown in segments I and II (the former slightly paler), III and IV whitish yellow but slightly darkened apically, IV also darkened in pedicel, V-VIII gray-brown, the first of these paler just beyond base, VI somewhat darker.

Head (Fig. 1) about *0.85* as long as width across eyes, which is conspicuously greater than that across cheeks, the latter *not noticeable serrated*, nearly straight, and tapering evenly to near base, where they roundly and abruptly converge; dorsal surface cross-striate in all except ocellar area, the striae on vertex interrupted; occipital apodeme dark brown and conspicuous, closely paralleling posterior margin of head; interocellar setae long (about 39 μ), dark brown, and conspicuous, *their bases only about 21* μ apart *and on a line tangent with inner margins of median and posterior ocelli;* other setae short and inconspicuous. *Eyes* distinctly protruding, about 63 μ long dorsally, about 40 wide, and about 71 apart. *Ocelli* normal, their pigmentation red. *Mouth-cone* normal, extending about 77 μ beyond posterior dorsal margin of head. *Antennae* (Fig. 2) thoroughly normal, though *much shorter and relatively stouter* than in *tenuicornis* (Fig. 3).

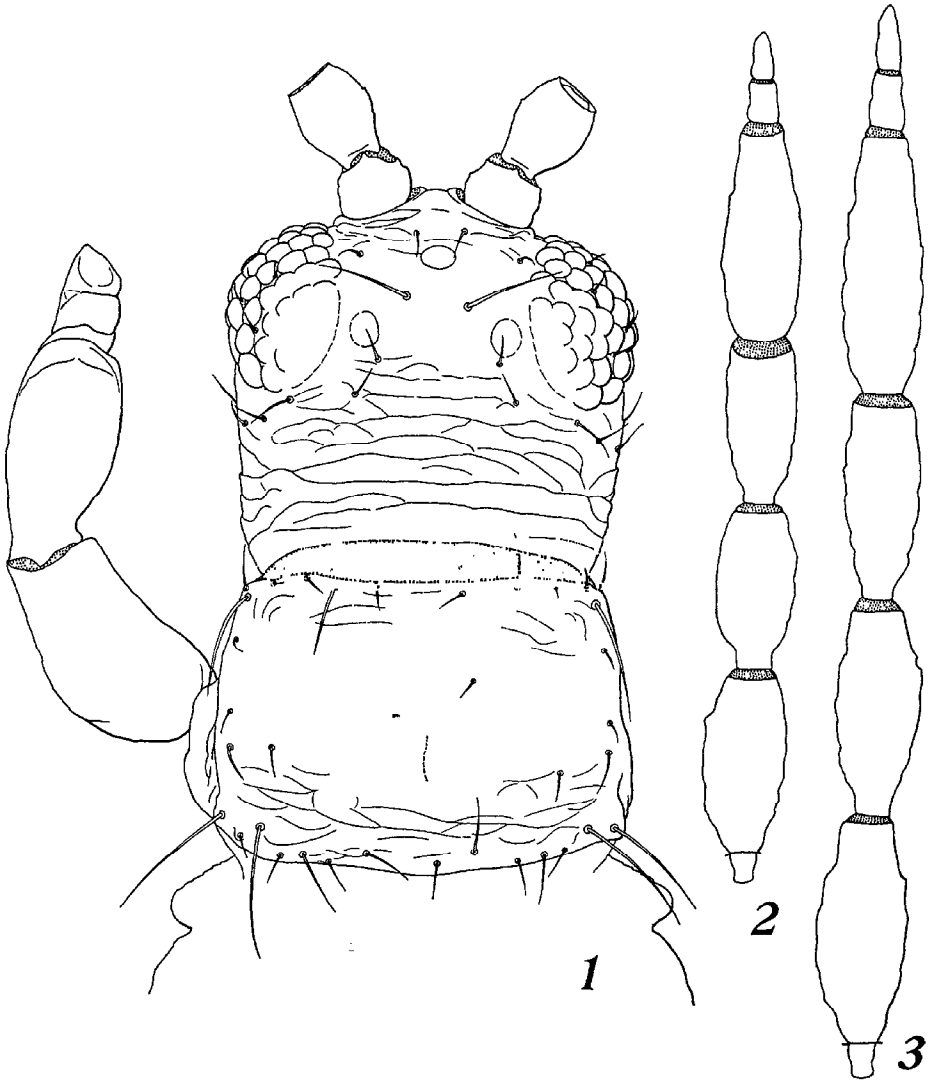

Fig. 1.—*Frankliniella welaka*, sp. nov., head and prothorax, ♀, holotype; x 227. (Setae omitted from leg and antennae.)[1]

Fig. 2.—*Frankliniella welaka*, outline of segments III-VIII of right antenna; x 363.

Fig. 3.—*Frankliniella tenuicornis* (Uzel), outline of segments III-VIII of right antenna; x 363.

Prothorax (Fig. 1) normal, lightly sculptured (only a few of the darker and heavier striae shown in figure); major setae dark gray in fully-matured individuals, the antero-marginals about 28 μ, antero-angulars 51, epimerals (outer pair at posterior angles) 45, inner 55. *Pterothorax* normal

[1] The cost of the line engraving was borne by Cornell University through its committee on Faculty Research Grants.

in all respects; fore wings about 547 μ long, costa with about 1 + 18 setae (those at middle of wing about 44 μ), fore vein with 4 + 11-14, hind vein with 8-11.

Abdomen normal; setae on terminal segments dark brown, segment IX with I 80 μ, II 111, III 128, X with I 112, II 106.

Measurements of ♀ (holotype), in mm.: Length about 1.0 (distended, 1.26). Head, length 0.128, width across eyes 0.150, greatest width across cheeks 0.141, width at base 0.119. Prothorax, median length of pronotum 0.107, width (exclusive of coxae) 0.153. Mesothorax, width across anterior angles 0.178; metathorax, greatest width posteriorly 0.189. Abdomen, greatest width (at segment IV) 0.199.

Antennal segments:	I	II	III	IV	V	VI	VII	VIII
Length (μ):	23	36	41	35	34	48	9	12
Width (μ):	27	27	18	17	17	17	7	5

Total length of antenna, 0.238 mm.

MALE (MACROPTEROUS).—Length about 0.9 mm. (distended, 1.1 mm.). Color pale yellow in body, legs, and first four antennal segments, the remainder of antennae gray; segment II very slightly darker than I, as are also the tip of III, pedicel of IV, and varying amounts of the apical portion of the latter; V paler than VI-VIII, paler just beyond pedicel. Chaetotaxy and sculpture about as in female.

Measurements of ♂ (allotype), in mm.: Head, length 0.127, width across eyes 0.145, greatest width across cheeks 0.135, width at base 0.112. Eyes, dorsal length 0.063. Interocellar setae, length 0.043, interval 0.020. Mouthcone, length beyond posterior dorsal margin of head, 0.055. Prothorax, median length of pronotum 0.101, width (exclusive of coxae) 0.151; antero-marginal setae 0.025, antero-angular 0.044, outer pair at posterior angles 0.049, inner 0.055. Mesothorax, width across anterior angles 0.167. Metathorax, greatest width posteriorly 0.175. Fore wings, length 0.504. Abdomen, greatest width (at segment IV) 0.158.

Antennal segments:	I	II	III	IV	V	VI	VII	VIII
Length (μ):	20	35	43	34	33	45	8	12
Width (μ):	27	26	19	17	17	17	7	5

Total length of antenna, 0.230 mm.

FLORIDA: Welaka, July 10, 1954, J.D.H. and Minter J. Westfall, Jr., 18 ♀'s (including holotype) and 8 ♂'s (including allotype), from axils of cattails.

This little, dimorphically-colored species is one over which the writer has deliberated a great many years, and whose status even now seems a matter of some doubt. It is very closely related to *F. tenuicornis* (Uzel), originally described from Europe, but very common in eastern North America. That species, however—represented in my collection by Old World material from some six countries, and by American material from seven states and the District of Columbia—is apparently confined to members of the grass family and is roughly twice as large. The present species appears to be strictly American and to be restricted to cattails (*Typha*); but whether the difference in food is wholly or partially responsible for the difference in size and for the much less drawn-out antennae, would be a difficult question to answer. It is named now largely because an identification has been requested by correspondents.

Frankliniella tenuicornis (Uzel)
(Fig. 3)

This large species probably occurs throughout most of the Holarctic Realm. The following material has been studied:

CZECHOSLOVAKIA: BOHEMIA: 1♀ "cotype", from H. Uzel's collection, received from R. S. Bagnall.

CZECHOSLOVAKIA: SLOVAKIA: 2♀'s, det. by Jaroslav Pelikán.

HUNGARY: 1♀, det. by H. Priesner.

FINLAND: 1 ♀, det. by O. M. Reuter.

ENGLAND: 1 ♀, det. by R. S. Bagnal.

DENMARK: 6♀'s, coll. by Dr. J. Chester Bradley, at Dragør, Amager, Aug. 10, 1938, on grass along beach.

U. S. A.: Many ♀'s and and ♂'s, from Illinois, Indiana, Virginia, District of Columbia, Maryland, New Jersey, Massachusetts, and New York.

The following measurements are of four females, from four widely separated localities, and permit detailed comparison with the new species described above. The first measurement in each case is of a specimen from Denmark, while the next three measurements (if the condition of the specimens warrants their being taken), enclosed in parentheses, are, in order, those of (1) the Uzel "cotype", in italics, (2) a specimen from Slovakia, and (3) one from New York. Length about 1.4 mm. (*1.5*, 1.4, 1.3), distended 1.8 (*1.6*, 1.8, 1.7). Head, length 0.167 (——,

——, 0.160), width across eyes 0.176 (——, —— 0.185), greatest width across cheeks 0.163 (——, ——, 0.175), width at base 0.139 (——, ——, 0.150). Eyes, dorsal length 0.080 (*0.082*, ——, ——). Interocellar setae, length 0.050 (*0.049*, 0.051, 0.055), interval 0.042 (*0.040*, 0.042, 0.039). Pronotum, median length 0.141 (*0.157*, 0.144, 0.153), width (exclusive of coxae) 0.193 (*0.196*, ——, ——). Abdominal segment IX, seta I 0.146 (*0.150*, 0.142, 0.148), seta II 0.167 (*0.180*, 0.170, 0.163), seta III 0.168 (*0.170*, 0.177, 0.170); segment X, seta I 0.172 (*0.174*, 0.166, 0.169), seta II 0.157 (*0.167*, 0.148, 0.147).

Antennal segments:	I	II	III	IV	V	VI	VII	VIII	
Length (μ)	26	46	59	50	46	62	13	17	(♀, Denmark)
	....	....	....	*51*	*48*	*63*	....	....	(♀, cotype)
	....	....	....	55	48	63	13	17	(♀, Slovakia)
	30	47	64	50	49	64	12	16	(♀, New York)
Width (μ):	33-34	29	18	20	18	18	8	5	(♀, Denmark)
	36	31	20	20	18	19	8	6	(♀, New York)