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Hyphessobrycon togoi, a new species from the La Plata basin (Teleostei: Characidae) and comments about the distribution of the genus in Argentina

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***Hyphessobrycon togoi*, a new species from the La Plata basin (Teleostei: Characidae) and comments about the distribution of the genus in Argentina.** - A new species of the characid genus *Hyphessobrycon* is described from tributaries of the Río de la Plata and the Salado River system in middle-eastern Argentina. *Hyphessobrycon togoi* can be distinguished from all congeners, except *H. langeanii* Lima & Moreira, by the presence of a well-defined, round to horizontally oval humeral spot. Other diagnostic characters defining Hyphesso-brycon togoi are the possession of a short expanded maxilla with one large multicuspid tooth; premaxilla with an outer row of 3 small teeth, with 5 or 6 cusps, relatively apart from each other; inner series with 5 teeth that are distally broader, with numerous cusps (6-11) and overlapping each other; iv-v, 17-20 anal-fin rays; 31-36 scales on longitudinal series. *Hyphessobrycon togoi* is also distinguished by the presence of bony hooks on all fins of the mature males. Considerations about the distribution of the species of genus *Hyphessobrycon* in Argentina are included.
Keywords: Ostariophysi - *Hyphessobrycon* - new species - systematic - biodiversity - taxonomy - distribution - middle eastern Argentina.

INTRODUCTION

The genus *Hyphessobrycon* Durbin includes more than 100 valid species (Lima *et al.,* 2003; Lima & Moreira, 2003; Lucena, 2003; Almirón *et al.,* 2004; Bertaco & Malabarba, 2005), occurring from Mexico and Central America to Mar Chiquita lagoon in Buenos Aires, Argentina, reaching its highest diversity in the Amazonian basin. *Hyphessobrycon is* diagnosed among the remaining characids by the combination of the presence of incomplete lateral line, naked caudal fin, presence of adipose fin, two

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series of premaxillary teeth (the inner row with *5* or more teeth), second infraorbital not contacting the preopercle inferiorly, and supraoccipital process usually bordered by 2 1/2 scales on each side (Eigenmann, 1917; Ringuelet *et al.,* 1967; Géry, 1977). Authors that have recently addressed the systematics of the genus are unanimous in noticing the poorly defined nature of the group and the uncertainty of its monophyly (e.g., Costa & Géry, 1994; Weitzman & Palmer, 1997; Moreira *et al.,* 2002; Malabarba & Weitzman, 2003; Bertaco & Malabarba, 2005). The following species have been recorded from the Río de la Plata and Paraná River basins: *H. anisitsi* (Eigenmann); *H. bifasciatus* Ellis; *H. eques* (Steindachner); *H. elachys* Weitzman; *H. guarani* Mahnert & Géry; *H. igneus* Miquelarena, Menni, López & Casciotta; *H. luetkenii* (Boulenger); *H. meridionalis* Ringuelet, Miquelarena & Menni; *H. reticulatus* Ellis; and *H. wajat* Almirón & Casciotta (López *et al.,* 2003). Later *H. auca* Almirón, Casciotta, Bechara & Ruiz Diaz was described from Esteros del Iberá wetlands.

We describe herein a new species of *Hyphessobrycon* from tributaries of the Río de la Plata and the Salado River system in the province of Buenos Aires. Argentina. We assign the new species to *Hyphessobrycon* in accordance with the present diagnosis of the genus.

MATERIAL AND METHODS

Measurements to the nearest 0.01 mm were made using a Digimess digital caliper following Fink & Weitzman (1974: 1-2). Osteological observations were made on four specimens cleared and stained (c&s) for bone and cartilage following the protocol by Taylor & Van Dyke (1985). All measurements are expressed as percentage of standard length (SL), except for head measurements, which are expressed as percentage of head length (HL). For all counts, frequencies are given in parentheses and the holotype is indicated by an asterisk. Institutional abbreviations are taken from Leviton *et al.* (1985). The material examined are deposited at Instituto de Limnología «Dr. Raúl A. Ringuelet» (ILPLA), Museo de La Plata (MLP), Argentina and Muséum d'histoire naturelle (MHNG), Suisse.

COMPARATIVE MATERIAL:

Cyanocharax lepiclastus Malabarba, Weitzman & Casciotta, ILPLA 1689, 8 ex., 33.2-46.0 mm SL, Fortaleza creek (26° 46'S-54º 10'W), Misiones, coil.: R. Filiberto *et al.,* Jan. 2001; *Cyanocharax macropinna* Malabarba & Weitzman, ILPLA 1688, 8 ex., 34.1-42.5 mm SL, Chirimay Miní creek, Misiones, coll.: R. Filiberto *et al.,* Jan. 2001.

Hemigrammus anisitsi, CAS 44366. 6 paratypes, 19.8-23.0 mm SL, South America, Paraguay, Caapucu?, Paraná/de La Plata. arroyo Carumbey, Estancia La Armonia, coil.: Anisits, J. D., Jan. 1900. *H. anisitsi,* ILPLA 1315, 2, (I c&s), 36.2-37.0 mm SL, Canada alta, Rabon creek basin, Entre Ríos, coil.: M. Montenegro, 17/03/01. MACN 7654, 7, (1 c&s), 32.0-40.5 mm SL, laguna del Colastiné, Santa Fe, 29/07/75.

H. arianae (Uj & Géry), MHNG 2412.80, 5 paratypes, 19.9-22.4 mm SL, Paraguay: Caaguazu, Rio Güyraugua (affluent du Rio Monday), 3 Km Est. Lta. Juan Frutos, coil.: F. Baud, C. Dlouhy & V. Mahnert, 16/04/85.

H. bifasciatus, ILPLA 147, 4, 27.1-30.2 mm SL, parallel canal BR-471 Km 115, Estação Ecológica do Taim, R. S., Brasil, coil.: P. A. Buckup & C. F. M. Souto, 21/IV/79; ILPLA 1587, 2, 28.7-33.7 mm SL, Estação Ecológica do Taim, Rio Grande, R. S., Brasil, coil.: P. A. Buckup & C. Souto, 22/IV/79; ILPLA 1590, 3, 33.4-39.8 mm SL, Entrada do Ayo. Taim, Estação Ecológica do Taim, Rio Grande, R. S., Brasil, coil.: L. R. Malabarba & C. F. M. Souto, 17/XII/80.

H. cf. *bifasciatus,* MLP 8408, 1, (1 c&s), 33.3 mm SL, pond on Bella Vista (28° 31' S-59° 02' W)-San Roque (28'35'S-58'41,W) Road (across from School N° 12), Corrientes, Coll.: A., Miquelarena, 12/IX/79; MLP 8409, 1, (1 c&s), 29.3 mm SL, creek Batel (29° 15, S-58° 48' W), Corrientes, Coll.: A. Miquelarena, 10/X/79.

H. guarani, MHNG 2366.100, 5 paratypes, 18.3-26.2 mm SL, Paraguay, río Alto Paraná a Puerto Bertoni, Depto. Alto Paraná, Coll.: M. C. Durette-Desset *et al.,* 13/11/82; MHNG 2370.13, 7, 18.0-29.8 mm SL, Argentina, Misiones, Río Alto Paraná a Puerto Iguazú, Coll.: C. Dlouhy, 01/02/87; USMN 290840, 3 paratypes, Paraguay: Depto. Alto Paraná, Alto Paraná River at Puerto Bertoní (25° 33'S 54° 40,W).

H. igneus, MLP 8413, holotype, 26.6 mm SL, pond along Bella Vista-San Roque Road (across from School N° 12), Corrientes, Coll.: C. Darrieu *et al.*

H. lüetkenii, ILPLA 1589, 3, 39.0-51.7 mm SL, Estação Ecológica do Taim, Rio Grande, R. S., Brasil, Coll.: N. A. Menezes & P. A. Buckup, 13/XII/79; ILPLA 12, 122.8-23.9 mm SL, Arroyo Batel, Corrientes, Coll.: R. Menni *et al.,* XI/80; MLP 8822, 1, 25.2 mm SL, pond along Route 11 to Tte. Gral. J. C. Sánchez, Formosa, coll.: R. Menni, *et al.*

H. meridionalis, ILPLA 10, 3, 39.4-40.9 mm SL, Los Talas, Berisso, Buenos Aires; ILPLA 45, 3, 38.5-39.1 mm SL, Zapata creek, outskirts of La Plata, Buenos Aires, Coll.: R. Menni, *et al. ;* MLP 8339, holotype, 43.7 mm SL, marsh on the road from La Plata to Magdalena, Buenos Aires; MLP 8407, 2, 31.0-32.0 mm SL, pond along Bella Vista-San Roque Road (across from School N° 12), Corrientes, Coll.: A. Miquelarena.

H. reticulatus, ILPLA 486, 3, 34.6-39.8 mm SL, Estação Ecológica do Taim, Rio Grande, R. S., Brasil, *Coll.:* L. R. Malabarba & C. F. M. Souto, 17/12/80; ILPLA 131, 4, 24.5-29.3 mm SL. Delta, INTA, Coll.: Bachmann, 17/VII/64; MLP 8776, 3, 29.5-34.7 mm SL, Irigoyen Canal, Talabera Island, Campana, Buenos Aires, Coll.: L. Lunaschi & C. Sutton, 19/II/89.

H. wajat, MLP 9321, holotype, 1, 27.4 mm SL, Brava pond (58° 44,W 27° 33, S), Corrientes, Coll.: R. J. Fernández, 15/XI/89; MLP 7853, paratypes, 4, 24.4-26.3 mm SL, Negro River (59'00,W 27° 26' S), Resistencia, Chaco, Coll.: M. Galván; MLP 9322, paratypes, 5, 27.8-30.8 mm SL, Iberá pond (57° 08' W 28' S), Coll.: A. Almirón & J. Casciotta, XI/97.

RESULTS

Hyphessobrycon togoi sp. n. Fig. 1

MATERIAL EXAMINED: *Hyphessobrycon anisitsi (nec* Eigenmann): Ringuelet *et al.,* 1978: 254 (29 specimens from Chascomús lagoon, Buenos Aires, 49.0-73.5 mm SL); Miquelarena, 1982: 281, 296, 297 (10 specimens c&s from Chascomús lagoon, Buenos Aires, 42.0-83.0 mm SL); Miquelarena, 1986: 5, 32, 33 (6 specimens c&s from Chascomús lagoon and shell quarry in Berisso, Buenos Aires, 42.0-83.0 mm SL).

Holotype: ILPLA 1704, 59.0 mm SL, ♀, Argentina, Buenos Aires Province, Chascomús lagoon (35° 45' S-58° 30' W), March 1973, coll.: A. Miquelarena.

Paratypes: ILPLA 47, 2 ♀ and ♂ 55.2-62.4 mm SL, same locality as holotype, October 1965, coll.: C. Togo *et al.*; ILPLA 1080, 2 ♀ (1 c&s), 53.1-64.3 mm SL, same locality as holotype, April 1984, coll.: O. Padin and J. Iwaszkiw; ILPLA 1231 2 ♂, 44.5-48.0 mm SL, Argentina, Buenos Aires Province, Matanza-Riachuelo River (34° 39,S-58' 22'W), tributary of Río de la Plata, November 1974, coll.: R. Taberner and Bellonni; ILPLA 1232, 1 ♀, 64.4 mm SL, Argentina, Buenos Aires Province, Lobos lagoon (35° 11' S-59° 06'W); ILPLA 1246, 2 ♀ c&s, 35.5-41.0 mm SL, same locality as holotype, June 1977, coll.: H. López; ILPLA 1257, 3 ♀ and 2 ♂ (1 c&s), 46.4-55.7 mm SL, Argentina, Buenos Aires Province, El Destino creek, Road 11 to Punta Indio, Partido de Magdalena (35° 15, S-57°40' W), tributary of Río de la Plata, October 1975, coll.: O. Padin, C. Fiorito and L. Protogino; ILPLA 1637, 2 ♂, 46.5-56.0 mm SL, Argentina, Buenos Aires Province, Salado River, Ruta Pilar-Lezama (35° 45, S-58° 30, W), October 1975, coll.: O. Padin, L. Protogino and C. Fiorito; ILPLA 1705, 4 ♀, 61.1- 68.4 mm SL, same data as holotype; ILPLA 1708, 2 ♀, 46.1-57.6 mm SL, same locality as holotype, March 1983, coll.: J.

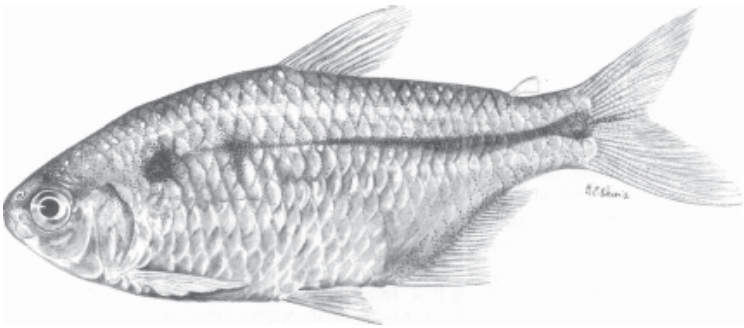

FIG. 1
Hyphessobrycon togoi sp. n., ILPLA 1704, holotype, female, 59,0 mm SL.

Iwaszkiw; ILPLA 1707, 1 ♀ c&s, 83 mm TL, Argentina, Buenos Aires Province, shell quarry in Berisso, November 1976, coll.: A. Miquelarena & H, López; MHNG 2679.013, 2 ♀, 64.5-65.0 mm SL, same data as holotype; MLP 9669 5 ♀, 53.0-56.0 mm SL, Argentina, Buenos Aires Province, Lacombe Lagoon (35° 50' S-57° 53,W), April 2006, coll.: D. Colautti.

DIAGNOSIS: *Hyphessobrycon togoi* can be distinguished from all congeners, except *H. langeanii* Lima & Moreira, by the presence of a well-defined, round to horizontally oval humeral spot. *Hyphessobrycon togoi* differs from *H. langeanii* by the possession of a second humeral spot (vs. absent), maxilla not reaching anterior edge of orbit (vs. maxilla reaching middle of orbit) and infraorbitals 3 and 4 separated (vs. coossified).

Other diagnostic characters defining *Hyphessobrycon togoi* include a short expanded maxilla with one large multicuspid tooth; premaxilla with an outer row of 3 small teeth, with 5 or 6 cusps, relatively apart from each other; inner series with 5 teeth that are distally broader, with numerous cusps (6-11) and overlapping each other; iv-v, 17-20 anal-fin rays; 31-36 scales on the longitudinal series. *Hyphessobrycon togoi* is also distinguished by the presence of bony hooks on all fins of the mature males.

DESCRIPTION: Morphometrics are shown in Table 1. Body compressed, moderately deep, greatest body depth at dorsal-fin origin. Predorsal body profile convex, slightly concave at level of supraoccipital process. Body profile convex between dorsal-fin origin and adipose-fin origin. Ventral profile convex from tip of mandible to end of anal fin. Dorsal and ventral margins of caudal peduncle straight or slightly concave. Caudal peduncle relatively high.

Head short. Snout short. Eye relatively small. Frontals broad at interorbital area, its width greater than eye diameter. Jaws equal, mouth terminal. Maxilla short not reaching anterior edge of orbit.

Dorsal-fin origin almost equidistant from tip of snout and base of caudal-fin rays. Tip of pectoral fin not surpassing pelvic-fin origin in both males and females. Pelvic fin tip does not surpasses the anal-fin origin. Presence of bony hooks on rays in all fins in mature males. Dorsal-fin rays ii, 9 (23*); iii, 8 (1 c&s); iii, 9 (3 c&s) posterior margin of dorsal fin typically straight, last unbranched ray and first two branched rays longest. First unbranched ray very small, only visible in cleared and stained specimens.

TABLE 1. Morphometric data of *Hyphessobrycon togoi* sp. n.

Characters	Holotype	Paratypes			
	♀	♀(n=15)		♂(n=7)	
		Range	Mean	Range	Mean
Standard length (mm)	59.0	46.1-68.4	59.4	44.5-56.0	49.6
Percents of Standard length					
Head length	24.7	21.3-24.9	23.1	22.3-26.8	24.0
Body depth	39.6	34.9-40.3	38.0	35.4-39.4	36.6
Snout to dorsal-fin origin	51.5	50.2-53.8	51.7	48.7-54.9	51.2
Snout to pectoral-fin origin	24.3	22.3-26.6	24.7	22.4-26.5	24.6
Snout to pelvic-fin origin	47.1	45.2-49.8	47.4	46.5-50.8	48.1
Snout to anal-fin origin	66.3	64.2-69.1	67.0	63.1-69.3	66.1
Caudal peduncle length	12.4	11.1-14.3	12.8	10.5-13.4	12.2
Caudal peduncle depth	14.0	12.0-14.0	13.0	12.0-14.6	13.2
Dorsal-fin base length	14.0	12.3-15.2	13.5	13.1-15.1	13.9
Longest dorsal-fin ray	28.3	24.5-28.3	26.8	25.5-28.1	26.3
Pectoral-fin length	18.1	15.5-21.7	19.6	18.2-20.6	19.3
Pelvic-fin length	14.3	15.1-19.2	17.2	16.3-17.9	17.2
Anal-fin base length	26.2	23.9-27.7	25.8	23.6-27.3	25.7
Percents of head length					
Horizontal eye diameter	35.6	30.7-36.7	33.9	34.9-36.7	35.7
Snout length	17.5	14.6-21.3	18.1	15.8-21.5	18.8
Interorbital width	38.0	36.0-43.2	39.3	36.8-41.9	39.1
Upper jaw length	31.4	29.4-35.6	32.5	28.8-36.3	32.9

Adipose fin well developed in all specimens. Pectoral-fin rays i, 9 (6); i, 10 (10 + 4 c&s); i, 11 (7*). Pelvic-fin rays i, 6 (4 + 3 c&s); i, 6, i (1); i, 7 (18* + I c&s). Pelvic fin with axillary scale. Anal-fin rays iv, 17 (4); iv, 18 (10); v, 18 (1 + 1 c&s); iv, 19 (4 + 2 c&s); v, 19 (*); iv, 20 (3 + I c&s). Anal-fin origin located posterior to vertical through base of last dorsal-fin ray. Pelvic fin fallen short of anal fin by 2-3 scales. Caudal fin forked, lobes rouded, and similar in size. Principal caudal-fin rays i, 17, i. Dorsal procurrent rays 11 (1); 12 (1); 13 (2); ventral procurrent rays 10 (4).

Scales cycloid, relatively large-sized. Lateral line incomplete, perforated scales 8 (1); 9 (10); 10 (9*); 11 (1); 13 (1); 14 (1). Longitudinal scale series 31 (1); 32 (3); 33 (4); 34 (10*); 35 (4); 36 (1). Scales rows between dorsal-fin and anal-fin origins 10 (2); 11 (9*); 12 (12). Predorsal scales 12 (21*); 13(2), arranged in irregular series. Single row of scales covering base of anteriormost anal-fin rays.

Infraorbital bones 6, distal border of third infraorbital not reaching sensory canal of preopercle. Supraneurals 6 (n=4). Total vertebrae 35 (n=4). Gill-rakers 7+12 (n=2), 6+13 (n=1), 6+14 (n=1). Gill rakers very developed. Each raker has several short spicules of bone arranged in irregular rows along its length.

Two tooth rows in premaxilla. Outer row with 3 teeth, with 5 or 6 cusps, very small and noticeable apart from each other; each tooth situated between two inner series teeth (Fig. 2a). Inner row with teeth well-developed, multicuspid, very broadened distally and overlapping each other on the lateral process. Five inner-row teeth decreasing in size from symphysis: first one with 7 cusps, second and third ones with 11 cusps, fourth with 8 cusps, and fifth with 6 cusps (Fig. 2b). Maxilla short, with expanded distal portion and one tooth with 7-8 cusps at its ventral margin (Fig. 2c).

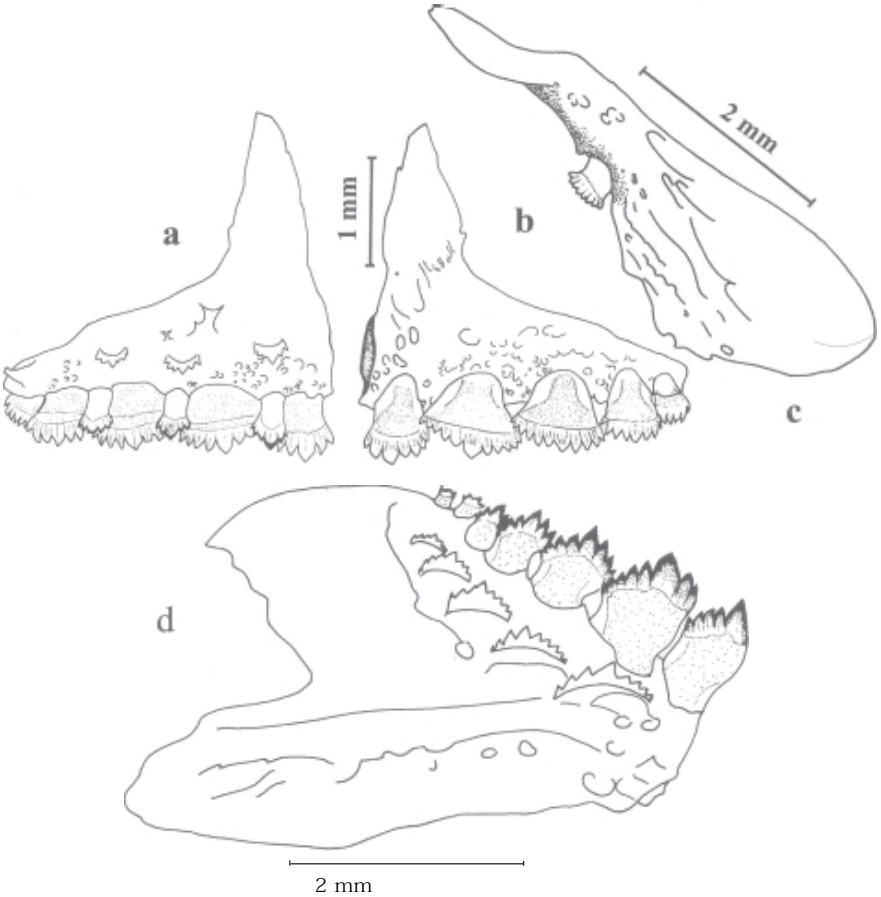

FIG. 2

Hyphessobrycon togoi sp. n., ILPLA 1707, paratype, female 83,0 mm TL: a. Right premaxilla, external view (scale bar: 1 mm); b. Right premaxilla, internal view (scale bar: 1 mm); c. Right maxilla, internal view (scale bar: 2 mm); d. Right dentary. internal view (scale bar: 2 mm).

Dentary with 6 to 8 teeth, the first 4 large and well-developed, remaining teeth smaller. The larger for teeth very close to each other and with 7-8 cusps, remaining teeth with 3 or 4 cusps (Fig. 2d).

COLOR IN LIFE: Ground color in life iridescent with silvery, greenish, yellowish, bluish, and lilac hues. Dorsal and anal fins grayish. Pectoral and pelvic fins translucent, with silvery hues. Caudal fin reddish with middle caudal-fin rays darkened. First humeral spot rounded, black, well defined; second humeral spot formed by dark, scattered melanophores (Fig. 3).

FIG. 3
Hyphessobrycon togoi sp. n.. about 30 mm SL, flooded areas near Chascomús lagoon, not preserved. Photo by A. Miquelarena.

Lateral longitudinal stripe very narrow from anterior portion of body through tip of medial caudal-fin rays, slightly iridiscent anteriorly, darkening at level of adipose fin to base of caudal fin where it forms a wider black caudal spot. Small dark melanophores dotting most of head and body, especially in the mid-dorsal region and ventrally above the anal fin. Upper and lower lips with fine dark dotting.

COLOR IN ALCOHOL: Dorsum and head light brown. Dense concentration of chromatophores along dorsal profile, more conspicuous from end of adipose fin to dorsal procurrent rays. Posterior margin of scales above lateral longitudinal stripe darkened by higher concentration of small chromatophores.

Anterior humeral spot, rounded to oval, well defined, from third scale behind the opercle, above the perforated scales of the lateral line, extending to sixth scale. Frequently anterior and ventral part of this spot with a series of scattered melanophores extending vertically, more conspicuous in some specimens, second diffuse spot separated from anterior spot by 3 scales. Behind latter spot, sparse melanophores forming a narrow midlateral stripe, well defined (one scale high), becoming more conspicuous upon the caudal peduncle and broadening at caudal-fin base, forming a blotch of scattered melanophores continuing onto middle caudal-fin rays. Fins translucent, with few melanophores on rays. Snout, lips, and maxilla with scattered chromatophores. Ventral body light brown. Scales above the base of anal fin with chromatophores. Interracial membrane of paired and unpaired fins with small chromatophores, distributed along the rays. Anal fin with chromatophores more concentrated on distal end.

SEXUAL DIMORPHISM: Males with bony hooks in all fins. Ray bifurcations of dorsal, pelvic and caudal fins with few bony hooks. Bony hooks specially numerous at pectoral and anal fins, with 2-3 bony hooks in each ray segment. Morphology of anal fin similar for both sexes, somewhat more concave in females.

In addition, females with greater standard length and body depth than males (Table 1).

ETYMOLOGY: This species is dedicated to our friend Carlos Togo, a great expert and pioneer of ichthyofaunal research in pampasic lagoons.

GEOGRAPHICAL DISTRIBUTION: Salado River system and tributaries of the Río de la Plata in the Buenos Aires Province, Argentina (Fig. 4).

HABITAT NOTES: In Buenos Aires province *Hyphessobrycon togoi* is found in the Salado River and in ponds, marshes and creeks within the Salado basin. The Chascomús, Lobos and Lacombe lagoons are extensive water-bodies with abundant floating and submerged vegetation (Fig. 5). These lakes are a portion of a lenthic environment system which is one of the most remarkable features of the wet pampa (Menni, 2004). *H. togoi* is not especially abundant with respect to other species occurring in these lagoons, but it is sometimes caught in canals and flooded areas near the lagoons. The Salado River crosses Buenos Aires Province from northwest to southeast, running for approximately 690 km in the Pampasia and finally draining into Bahía de Samborombón. The new species was also found in Matanza River, a highly polluted environment draining into the Río de la Plata. Some of the most densely populated areas of Argentina lies along the middle and lower sections of this river, coupled with a high and complex industrial concentration (Aguglino, 1996).

DISCUSSION

Hyphessobrycon togoi differs from *H. anisitsi* by having lesser anal fin rays (iv-v, 17-20 vs. iv-v, 20-23); more cusps in the maxillary tooth (7-8 vs. 3-5); more cusps in the teeth of both premaxillary rows (5-6/6-11, vs. 2-4/3-6.); and higher number of total gill rakers (19-20 vs. 15-16). The mature males of *H. togoi* possess bony hooks in all fins; these structures have also been observed in the dorsal, anal and pelvic fins of *H. anisitsi* mature males. This character was reported in *H. auca* from the Esteros del Iberá wetlands by Almirón *et al.* (2004) and in *H. hamatus* from the upper Tocantins River drainage (with bony hooks on dorsal, anal, pelvic, and pectoral fins) (Bertaco & Malabarba, 2005). *H. togoi* differs from *H. auca,* among other characters, by having less anal-fin rays (iv-v, 17-20 vs. iii-v 21-25) and short broad maxilla (vs. long and narrow) and from *H. hamatus* by having more anal-fin rays (iv-v. 17-20 vs. iii-v, 16-18). less maxillary teeth (I vs. 2-3) and more cusps in the teeth of both premaxillary rows (5-6/6-11, vs. 3/3-5, respectively). Moreover, the coloration pattern of *H. togoi* is distinct from the abovementioned species in possessing an anterior humeral spot round to horizontally oval (vs. vertically elongated).

H. socolofi Weitzman and *H. erythrostigma* (Fowler) have small bony hooks on the dorsal, anal, pelvic, and pectoral fins of males, but differ from *H. togoi* in several important traits (Weitzman, 1977).

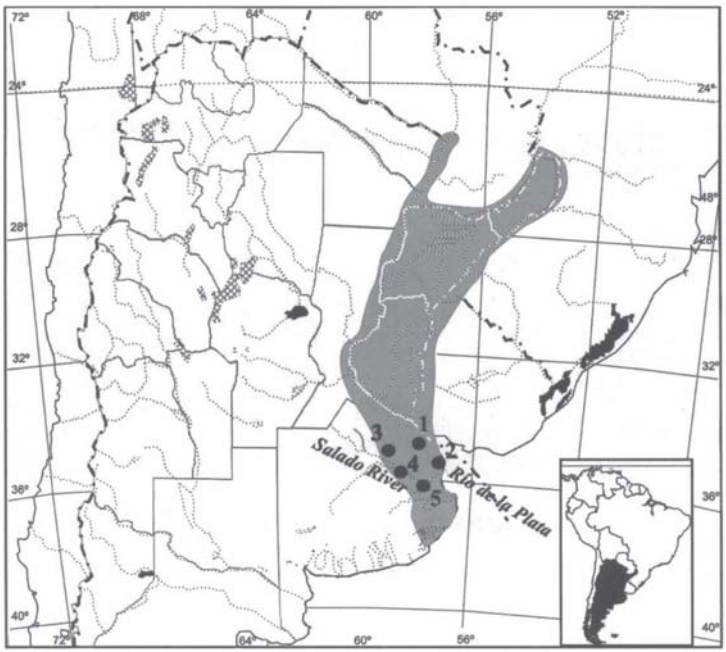

FIG. 4

Distribution of genus *Hyphessobrycon* in Argentina, circle black indicates the type locality of *Hyphessobrycon togoi sp.* n.: Tributaries of Río de la Plata (1, 2); Salado River System (3, 4, 5).

According to the ichthyogeographical schemes of Ringuelet (1975) and Arratia *et al.* (1983), the area of distribution of genus *Hyphessobrycon* in Argentina lies within the Paranoplatensean province. The species of the genus are extensively distributed in lotic and lenthic environments of the Río de la Plata and Salado basins, and the bonaerensean Atlantic drainage basins (sensu Mazza, 1961). This area is limited in the north by the Paraguay River, in the east by the Uruguay River, in the west by the Paraná River and Salado River basin, and in the south by Mar Chiquita, a coastal lagoon in Buenos Aires Province. The latter corresponds to the southernmost distributional limit (37° 37' S-57° 24' W) of the genus as established by the occurrence of *H. anisitsi* (Cousseau *et al., 2001)*.

An analysis of the distribution of *Hyphessobrycon* species shows that most of them occur in Paraná and Uruguay Rivers, the Paraná River Delta and the mesopotamic region (Fig. 4). The latter has the greater number of species: *H. anisitsi, H. cf. bifasciatus, H. elachys, H. eques, H. igneus, H. luetkenii, H. auca, H. meridionalis,*

FIG. 5
Chascomús lagoon, Buenos Aires, Argentina, type locality of *Hyphessobbrycon togoi* sp. n.

H. reticulatus, and *H. wajat.*

According to Menni *et al.* (1996), *H. anisitsi, H. luetkenii,* and *H. meridionalis* belong to a larger group of species recognized as typically paranoplatensean. Ringuelet (1975) considered *H. anisitsi,* along with *Bryconamericus iheringii* (Boulenger), *Cheirodon interruptus* (Jennys), *Oligosarcus jenynsii* (Günther), *Pimelodella laticeps* Eigenmann and *Rhamdia quelen* (Quoy & Gaimard), as components of the common fish fauna of the wet Pampa. The present analysis of material from Buenos Aires Province confirms that many references formerly assigned to *H. anisitsi* actually correspond to *H. togoi.* This will modify the known distribution range of *H. anisitsi.*

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