# Description of Two New Species of *Eutropis* (Reptilia: Scincidae) from Sri Lanka with a Redescription of *Eutropis madaraszi* (Méhely)

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ABSTRACT.—I describe two new endemic *Eutropis* species, with restricted distributions from the Central Hills and Lowland wet zone of Sri Lanka. Both were previously identified as *Eutropis macularia* Blyth. *Eutropis austini* sp. nov. is a medium-sized skink immediately distinguished from *E. macularia* by coloration and in being larger, with only the upper pretemporal in contact with parietal, the first pair of chin shields in medial contact. *Eutropis greeri* sp. nov. is a medium-sized, spotted species that differs from *E. macularia* by coloration and is larger, with a heavily keeled dorsum and fragile skin. *Eutropis greeri* sp. nov. further differs from *E. macularia* in having only the upper pretemporal in contact with parietal and the first pair of chin shields in medial contact. *Eutropis greeri* sp. nov. is distinguished from *E. austini* sp. nov. in scalation, coloration, and having fragile skin. The identity of *Eutropis madaraszi* is stabilized through the designation of a neotype, and here is redescribed. Examination of the holotype of *Euprepes macularius* Blyth, 1853 (=*Eutropis macularia*), shows this taxon is not conspecific with any of the Sri Lankan *Eutropis Eutropis madaraszi*, *E. austini*, and *E. greeri* represent geographically, morphologically, and morphometrically discrete species. *Eutropis greeri* sp. nov. is confined to lowland wet zones, whereas *E. austini* sp. nov. is restricted to Central Hills (including Knuckles Range), and *E. madaraszi* to lowland dry zone of Sri Lanka.

Among the Sri Lankan lizard fauna, the family Scincidae is represented by 30 species and subspecies (Taylor, 1950; Deraniyagala, 1953; Batuwita and Pethiyagoda, 2007; Karunarathna et al., 2008), of which the largest species belong to the genus Eutropis Fitzinger, 1826. The taxonomic status of one of these, Eutropis madaraszi (Méhely, 1897) has long been disputed. Smith (1935) considered it a synonym of Eutropis macularia (Blyth, 1853); however, Taylor (1950) resurrected and redescribed the species, considering it to be a Sri Lankan endemic; Deraniyagala (1953) again returned it to the synonymy of E. macularia. Subsequent authors have generally accepted Taylor's view that it is a separable species (Welch et al., 1990; Das, 1994; de Silva, 1996). Unfortunately the syntypes of E. madaraszi that were deposited in the Musei Nacionalis Hungarici (=Természettudományi Múzeum, Barossu) were destroyed by fire (Korsós, 2008). Méhely's (1897) syntypes were collected from Kala-Wewa (08°01'N, 80°31'E) and Madatugama (07°57'N, 80°38′E) in the North Central Province of Sri Lanka.

Most recently, Das et al. (2008) recognized a new species, Eutropis tammanna, from among Sri Lankan populations related to E. macularia, but also found that residual Sri Lankan populations of E. macularia sampled for their genetic analysis did not form a monophyletic group, suggesting that further new species remained to be described in Sri Lanka, and that the status of E. macularia in Sri Lanka required further assessment. After examination of the specimens collected by Das et al. (2008), now in the collection of the National Museum Sri Lanka, and additional samples deposited in the collection of the Wildlife Heritage Trust of Sri Lanka (currently in the Colombo National Museum), I concur with their view, and recognize the genetic lineages (morphologically and geographically discrete), as separate species. Examination of the holotype of E. macularia indicates that none of these species represent E. macularia; instead, two are described as new, and one represents E. madaraszi, that is redefined.

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### MATERIALS AND METHODS

Scalation definitions follow those of Andreone and Greer (2002); mensural data were taken with the aid of a dial Vernier caliper to the nearest 0.1 mm, following the methods described by Batuwita and Pethiyagoda (2007). I determined sex of specimens by the presence of hemipenes in males and ovaries in females. Comparative materials examined for this study are housed in the collections of the Field Museum of Natural History, Chicago (FMNH), Carnegie Museum of Natural History, Pittsburgh (CM), the Museum of Comparative Zoology, Cambridge (MCZ), the National Museum of Sri Lanka, Colombo (NMSL), the Wildlife Heritage Trust of Sri Lanka (WHT), and the Zoological Survey of India, Kolkata (ZSI). Institutional abbreviations follow Sabaj Pérez (2014) with the addition of CCA (field numbers of Christopher C. Austin, specimens now in NMSL). Additional data were obtained from Smith (1935), Taylor (1950), and Inger et al. (1984). Geographic coordinates were determined from topographic maps (Survey Department, Colombo).

I used principal-components—based factor analysis of the character correlation matrix to reduce dimensionality of the continuous morphological variables, and I used these measurements for the analysis: SVL (snout–vent length), trunk length, head length, eye diameter, forelimb length, hind-limb length, and ear length (ear opening size). I tested various axis rotations and selected one for optimal interpretability of variations among the characters. Principal-component—based factor analysis with Equimax rotation had the optimum interpretability. The first two principal components explained more than 95% of the variance. I used 24 specimens in the multivariate morphological analysis conducted with Minitab® 92 (Version 16.0 for Windows).

#### RESULTS

Principal-components—based factor analysis with Equimax rotated axes on the correlation matrix of continuous characters from *Eutropis austini*, *Eutropis greeri*, and *E. madaraszi* showed clear separation of the three Sri Lankan species on two axes (Fig.

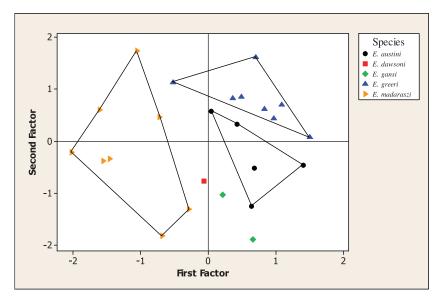


Fig. 1. Factor 1 vs. Factor 2 of the principal-components analysis of *E. austini* (Central Hills and Knuckles Range), *E. greeri* (Lowland wet zone), *E. madaraszi* (Lowland dry zone and Intermediate zone) (all from Sri Lanka); and *E. macularia* (=holotype of *Lygosoma dawsoni*), *E. gansi* (holotype and paratype) (all from India).

1). Two factor solutions were selected based on the scree plot and the number of factors with eigenvalue > 1. Factor 1 was represented by the first six variables and Factor 2 by ear length (Appendix 1). Significant variance was explained by SVL, trunk length, and head length. Of the total variance, 72.8% was explained by Factor 1. Eutropis madaraszi separated well from E. austini and E. greeri on the first axis (Factor 1). Eutropis greeri and E. austini were almost indistinguishable on the first axis, but were distinguished on the second axis. Eutropis austini and E. madaraszi overlapped with the Indian species Eutropis gansi and E. macularia (the latter represented by the type of Lygosoma dawsoni) on the first axis.

Eutropis austini sp. nov. (Figs. 1, 2A–D, 3, Tables 1–3)

Eutropis madaraszi Somaweera and Somaweera, 2009, in part.

Holotype.—WHT 7003, male, 75.0 mm SVL, Gannoruwa Forest Reserve, near Peradeniya, Sri Lanka, 07°17′10"N, 80°35′30" E, elevation 700 m, 13 August 2005, collected by S. Batuwita

Paratypes.—(all from Sri Lanka) WHT 6979, male, 47.5 mm SVL, same location data as holotype, 2 November 2002, collected by S. Batuwita, A. Silva, and K. P. Maduwage; WHT 6758, female, 66.0 mm SVL, Corbett's Gap, Knuckles Range, 07°22′N, 80°51′E, 1,100 m, 30 June 2005, collected by S. Batuwita; WHT 2049, male, 71.0 mm SVL, Puwakpitiya, Knuckles Range, 07°34′N, 80°45′E, 450 m, 1 September 1997, collected by M. M. Bahir and D. Gabadage; NMSL RSK 5, female, 66.0 mm SVL, no collection data; NMSL RSK 10B, female, 61.0 mm SVL, no locality data, July 1939; WHT uncatalogued, male, 60.8 mm SVL, Meemure, Knuckles Range, 07°26′N, 80°50′ E, 500 m.

Diagnosis.—Maximum SVL 75.0 mm; supranasals widely separated; postnasals absent; prefrontals widely separated; first and second supraoculars in contact with frontal; frontoparietals paired, as long as wide, in contact with second, third, and fourth supraoculars; interparietal as long as frontoparietal; parietal eye present; nuchals one or two pairs; supraciliaries five; third supraciliary distinctly elongate; pretemporals two, only upper

in contact with parietal; secondary temporals two, separated by tertiary temporal scale; supralabials seven; postsupralabials two; lower eyelid scaly; postmental in contact with first infralabial and partially contacting second infralabial; first pair of chin shields in contact medially; keels on body scales 5–8;

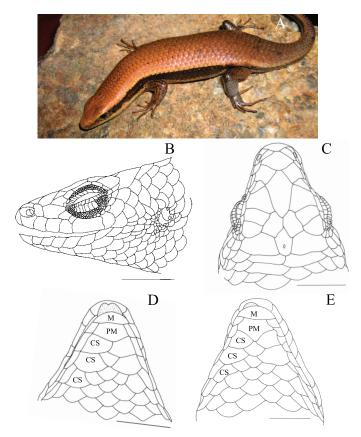


Fig. 2. A, in life; B, lateral view of head; C, dorsal view of head of holotype (WHT 7003) of *E. austini*; D, WHT 6758, paratype of *E. austini*, ventral view of head; E, NMSL RSK 8, *E. carinata*, ventral view of head (M, mental scale, PM, postmental, CS, chin shields, tongue shaded). Scale bar 5 mm.

	E. au	stini (n = '	7)	E. gr	eeri (n = 1	8)	E. maa	łaraszi (n =	17)	E. macularia, ZSI 2344	E. gansi, ZSI 24826 (holotype),
	Range	Mean	SD	Range	Mean	SD	Range	Mean	SD	(holotype)	ZSI 24828 (holotype), ZSI 24828 (paratype)
Midbody	28-31	30.0	0.9	28-32	29.7	1.1	28-32	30.5	1.2	27	29
Ventrals	49-54	51.4	1.5	46-52	49.7	1.7	48-59	52.3	2.9	_	46, 49
Paravertebrals	34-39	35.7	1.5	31-34	32.9	1.1	37-42	39.3	1.3	_	34, 35
Body scale keels	5–8	5.9	1.2	3–5	4.6	0.8	3–7	4.9	1.7	6	6–7
Subdigital lamellae											
on manus: digit I	5–6	5.6	0.5	5–7	6.2	0.5	5–6	5.9	0.3	5	5
II	9–12	9.7	0.9	9–10	9.3	0.5	9–10	9.4	0.5	8	8
III	11-13	11.9	0.6	11–12	11.8	0.4	11-13	12.2	0.6	11	11, 12
IV	11-13	12.1	0.7	11-13	12.3	0.7	11-14	12.2	0.8	11	<b>1</b> 1
V	7–9	8.1	0.6	7–10	8.2	0.6	8–8	8.0	0.0	7	8
Subdigital lamellae									0.0		•
on pes: digit I	6–8	6.7	0.7	6–7	6.4	0.5	6–8	6.9	0.5	5	6
II	9–12	10.4	1.0	9–10	9.1	0.2	10-12	11.1	0.7	10	9
ĪĪĪ	13–15	13.9	0.9	12–14	12.9	0.6	13–16	14.4	0.8	13	13
IV	16–18	16.8	0.6	16–18	16.9	0.4	15–19	17.4	1.0	14	15, 17
V	10–12	11.5	0.7	11–13	11.8	0.5	11–15	12.4	1.0	10	10

Table 1. Meristic data of E. austini, E. greeri, E. madaraszi, E. macularia (holotype, ZSI 2344), and E. gansi (holotype, ZSI 24826, paratype, ZSI 24828).

paravertebral scales 34–39; ventral scales 49–54; longitudinal scale rows at midbody 28–31; subdigital lamellae under fourth digit of pes 16–18; dorsal coloration bronze brown; and skin not fragile.

Description.—Maximum SVL 75.0 mm; head relatively short (head length 18.9–23.7% of SVL); supranasals widely separated; postnasals absent; frontonasal as wide as long; prefrontals widely separated; frontal longer than wide; supraoculars four, first and second in contact with frontal; frontoparietals paired, as long as wide, in contact with second, third, and fourth supraoculars; interparietal present, longer than wide; interparietal as long as frontoparietal; parietal eye present; parietals completely separated by interparietal; nuchals one or two pairs; eye relatively large (eye diameter 26.4-34.3% of head length); primary temporals 1 (n = 1) or 2 (n = 6); supraciliaries five, third supraciliary distinctly elongate; pretemporals two, only upper in contact with parietal; secondary temporals two, in contact each other or separated by a tertiary temporal scale, equal in size; tertiary temporals three; supralabials seven, fifth in subocular position; postsupralabials two; lower eyelid scaly; external ear opening suboval, without distinct ear lobules, 27.0-40.8% of eye diameter; mental wider than long; postmental wider than long, in contact with first infralabial and partially contacting second infralabial; infralabials 5-8; enlarged chin shields in three pairs, first pair in contact medially, second pair separated by a single median scale, and third pair separated by three scales medially; third pair of chin shields separated from infralabial row by a single scale row; body relatively long (trunk length 50.0–77.9% of SVL); keels on dorsal and lateral scales 5–8; outer preanals overlap inner; paravertebral scales 34–39; ventral scales 49-54; longitudinal scale rows at midbody 28-31; SVL 47.5-75.0 mm (n = 7), 4.2-5.3 times head length; unregeneratedtail length 67.0 mm (in WHT 6968), 1.6 times in SVL. Limbs well developed, pentadactyl; forelimb 29.3–36.8% of SVL; hind-limb length 43.9–53.7% of SVL; subdigital lamellae under fourth digit of manus 11–13, and under fourth digit of pes 16–18.

Details of Holotype.—Male; SVL 75.0 mm; supraciliaries five; longitudinal scales across midbody 30; paravertebrals 36; ventrals 52; tail length 62.0 mm (broken); forelimb length 31.3% of SVL, hind-limb length 46.7% of SVL; subdigital lamellae under fourth digit of manus 11 and subdigital lamellae under fourth digit of pes 16.

Color in Life.—Sexes alike. General body color copper brown; dorsolateral sides of head and body black; ventrolateral sides of head and body yellowish brown. A dark streak begins below ear that extends to forelimb insertion; ventral side of body yellowish brown. Limbs copper brown dorsally with series of black spots forming lines. Yellow dorsolateral stripe begins behind eye, continues onto body and extends to base of tail; tail copper brown.

Color in Preservative.—General body color light brown; dorsolateral sides of body dark brown; ventrolateral sides light brown; ventral side of body dusky white or white. Limbs light brown dorsally; dorsolateral stripe dusky yellow.

Etymology.—The species name is a patronym in the Latin genitive singular, in honor of Christopher C. Austin, for his contributions to the systematics of the scincid fauna of Sri Lanka.

Distribution and Natural History.—Eutropis austini has been recorded from third peneplain (see Wadia, 1945) of Sri Lanka (~500 m upwards) and only in forested areas of Central Hills: Corbett's Gap and Puwakpitiya (Knuckles Range), Gannoruwa Forest Reserve (Central Hills). Eutropis austini is sympatric with Eutropis carinata, Lankascincus taylori, Nessia monodactyla, and Otocryptis wiegmanni at Gannoruwa, and with L. taylori and Nessia bipes at Corbett's Gap, and with E. carinata, Lankascincus fallax, and L. taylori at Puwakpitiya. Eutropis austini is a terrestrial species found in leaf debris in open areas of forests.

Comparisons.—Here I compare E. austini to congeners from Asia, listing only opposing suites of character states. Eutropis andamanensis (Smith, 1935): six supraciliaries, primary temporal single, subdigital lamellae under fourth digit of pes 29; Eutropis beddomei (Jerdon, 1870): prefrontals in contact medially, six supraciliaries; Eutropis bibronii (Gray, 1838): lower eyelid with a transparent window, 20-22 subdigital lamellae under fourth digit of pes; E. carinata (Schneider, 1801): maximum SVL 122.0 mm, first pair of chin shields separated by a single median scale (Fig. 2E), supraciliaries 6–7; Eutropis clivicola (Inger et al., 1984): prefrontals in contact medially, first pair of chin shields separated by a single median scale; Eutropis dissimilis (Hallowell, 1857): supranasals in contact medially, prefrontals in contact medially, lower eyelid with a transparent window; Eutropis floweri (Taylor, 1950): first pair of chin shields separated by a single median scale, paravertebral scales 40-43; E. gansi (Das, 1991): first pair of chin shields separated by a single

TABLE 2. Mensural and morphometric data of E. austini, E. greeri, and E. madaraszi.

	E.	E. austini $(n = 8)$		E.	E. greeri (n = 18)		E. m	E. madaraszi (n = 17)	
	Range	Mean	SD	Range	Mean	SD	Range	Mean	SD
SAT	41.0–75.0		11.5	40.5–75.0	58.5	10.3	29.5–70.0	49.8	14.5
Trunk length	24.5-42.0		5.5	20.5-43.0	30.9	6.2	15.0-41.0	27.5	8.5
Head length	9.7–16.0	13.2	2.0	9.6–17.0	13.2	2.0	8.3–13.3	11.1	1.8
Eve diameter	2.9–5.1		0.8	2.9–4.6	3.9	0.5	2.4-4.3	3.3	9.0
Fórelimb length	14.0 - 24.0	20.2	3.5	14.0 - 27.5	20.9	3.6	12.0–22.5	17.5	4.0
Hind limb length	21.0–35.0	29.8	5.1	20.5–38.0	29.9	4.8	14.5 - 35.0	25.4	9.9
Ear length	1.0-2.0	1.3	0.3	1.0-1.9	1.4	0.3	0.7 - 1.8	1.2	0.3
Forelimb length as % SVL	29.3–36.8	33.5	2.5	30.7–38.1	35.7	2.0	29.7–40.7	33.8	2.6
Hind limb length as % SVL	43.9–53.7	49.5	3.4	42.9–54.7	51.3	2.9	39.8–53.9	48.5	3.7
Trunk length/SVL as %	50.0 - 67.1	56.2	5.3	49.0–57.3	52.6	2.3	49.3–58.8	53.6	2.8
SVL/ Head length	4.2 - 5.3	4.7	0.3	4.1-4.9	4.4	0.2	4.2–5.3	4.7	0.3
Head length/ SVL as %	18.9–23.7	21.5	1.4	20.3 - 24.1	22.6	1.0	19.0–24.1	21.4	1.6
Ear length/ Eve diameter as %	27.0-40.8	34.2	5.9	27.5-42.1	35.6	4.7	23.3–50.0	37.8	8.9
Eye diameter/Head length as %	26.4–34.3	29.8	2.5	25.8–35.7	29.6	2.7	26.3–33.6	30.0	2.7
Head length/ Trunk length as %	34.7–43.3	38.3	2.8	35.3–48.1	43.0	3.1	32.4–48.8	40.2	4.2

median scale, both pretemporals in contact with parietal; E. greeri sp. nov.: first supraocular not in contact with frontal, interparietal shorter than frontoparietal, 3-5 keels on dorsal and lateral scales, dorsal and lateral scales of head heavily keeled (on to parietals, supraoculars, and temporals), half-scale wide narrow dorsolateral stripe, dorsal coloration bronze-brown with series of spots forming uninterrupted lines; skin fragile (i.e., skin tears away easily when animal is grasped; see Greer and Broadley, 2000); Eutropis innotata (Blanford, 1870): lower eyelid with a transparent window, six supraciliaries; Eutropis longicaudata (Hallowell, 1857): supranasals in contact medially, postnasal present; E. macularia (Blyth, 1853): first pair of chin shields separated by a median scale, both pretemporals in contact with parietal; E. madaraszi (Méhely, 1897): one postsupralabial, 6-8 longitudinal series of lines on dorsum, welldeveloped median keels in all digits; Eutropis multifasciata (Kuhl, 1820): prefrontals in contact medially, postnasal present; Eutropis nagarjuni (Sharma, 1969): prefrontals in contact medially, ventral scales 59-62; Eutropis novemcarinata (Anderson, 1871): supranasals in contact medially, lower eyelid with a transparent window; Eutropis quadricarinata (Boulenger, 1887): prefrontals in contact medially, postnasal present; Eutropis rugifera (Stoliczka, 1870): 22-27 subdigital lamellae under fourth digit of pes, six supraciliaries; E. tammanna: dorsolateral stripe absent, prefrontals in contact medially, SVL up to 54.0 mm; Eutropis trivittata (Hardwicke and Gray, 1827): supranasals in contact medially, prefrontals in contact medially; Eutropis tytleri (Tytler in Theobald, 1868): prefrontals in contact medially, postnasal present.

*Remarks.*—The illustration identified as *E. madaraszi* by Somaweera and Somaweera (2009, fig. 257C) belongs to this species.

Eutropis greeri sp. nov. (Figs. 1, 3, 4, Tables 1–3)

Eutropis floweri Somaweera and Somaweera, 2009, in part Eutropis madaraszi Somaweera and Somaweera, 2009, in part Eutropis macularia Das et al., 2008, in part

Holotype.—WHT 7000, male, 69.0 mm SVL, Kombala-Kottawa Forest Reserve, Galle, Sri Lanka, 06°06′N, 80°15′E, 60 m, 24 October 2005, collected by S. Batuwita.

Paratypes.—(All from Sri Lanka) WHT 6957, 6997, 7009, two males and one female, 51.0, 70.0, 51.0 mm SVL, respectively, same location data as holotype, 8 April 2003, collected by S. Batuwita; WHT 6961, female, 58.0 mm SVL, same location data as holotype, 20 April 2002, collected by S. Batuwita and I. Alagiyawadu; WHT 6965, 6992, female and male, 47.0, 51.0 mm SVL, same location data as holotype, 29 March 2001, collected by S. Batuwita and I. Alagiyawadu; WHT 6987, male, 56.0 mm SVL, Beraliya Forest Reserve, Pituwala near Elpitiya, 06°15′N, 80°12′E, 80 m, 8 June 2001, collected by S. Batuwita; NMSL RSK 5, female, 70.0 mm SVL, Dilkanda?, May 1927; WHT 6986, 6990, 6993, one female and two males, 55.0 mm, 54.0 mm, 40.5 mm SVL, respectively, Hiyare near Galle, 06°06'N, 80°20'E, 60 m, 9 March 2003, collected by S. Batuwita; WHT 7007, male, 73.0 mm SVL, Kanneliya Forest Reserve, 06°15′N, 80°20′E, 150 m, 13 July 1999, collected by S. Batuwita and I. Alagiyawadu; WHT 2370, female, 70.0 mm SVL, Morningside forest reserve, Sinharaja World Heritage Site, 06°25′10"N, 80°36′30"E, 500 m, 12 January 1999, collected by M. M. Bahir and S. Nanayakkara; WHT 6768, male, 34.0 mm SVL, same location data of WHT 2370, 14 January 1999; WHT 6959, 6977, two males, 48.0, 53.0 mm SVL, respectively, Udugama, Galle, 06°14'N, 80°20'E, 30 m, 10 February 2003,

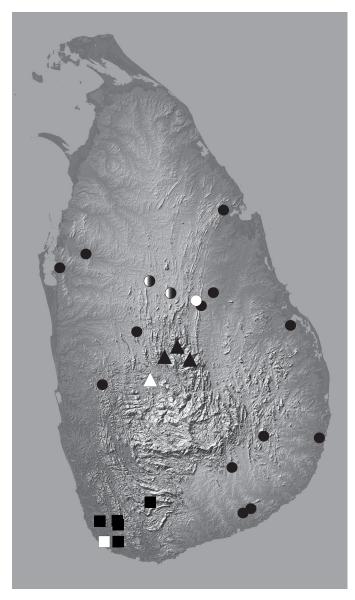


Fig. 3. Distribution of *E. austini* (triangles), *E. greeri* (squares), and *E. madaraszi* (circles); syntypes of *E. madaraszi* (in gradient circles); locations of holotypes or neotype (in white), other locations (in black) in Sri Lanka.



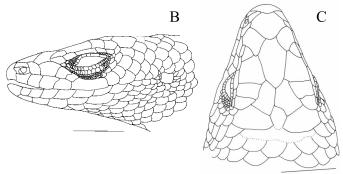


Fig. 4. WHT 7000, holotype of *E. greeri*, A, in life; B, lateral view of head; C, dorsal view of head (interrupted lines indicate damaged areas). Scale bar 5 mm.

collected by P. Wickramatilake; NMSL CCA 1771, female, 71.2 mm SVL, no collection data.

Diagnosis.—Maximum SVL 73.0 mm; supranasals widely separated; postnasals absent; prefrontals widely separated, extended to lateral surface of snout; first supraocular not in contact with frontal; second supraocular in contact with frontal; frontoparietals paired, longer than wide; interparietal shorter than frontoparietal; parietal eye present; nuchals one pair; supraciliaries five, third distinctly elongate; pretemporals two, only upper contact with parietal; primary temporals two; secondary temporals two, separated by tertiary temporal scale, equal in size; supralabials seven; postsupralabials two; lower eyelid scaly; infralabials seven; first pair of chin shields in median contact; second pair of chin shields separated by a single median scale; dorsal body scale carination extends onto nuchals, parietals, supraoculars, and to temporals; paravertebrals 31-34; ventrals 46-52; longitudinal scale rows at midbody 28-32; keels on dorsal and lateral body scales 3-5; subdigital lamellae under

TABLE 3. Number of pretemporals, temporals (primary, 1°; secondary, 2°; tertiary, 3°), postsupralabials, and chin shields (1st pair, 2nd pair, 3rd pair) of *Eutropis austini*, *E. greeri*, *E. madaraszi*, and some type specimens observed at ZSI (S, separated by scale/s [number of scales in parentheses]; C, contact).

		Temporals		Sample size based		Chin shields			Sample size based	
Species	Pretemporals	1°	2°	3°	on personal observation	Postsupralabials	First	Second	Third	on personal observation
E. austini	1	2C	2S(1)	3C	17	2	2C	2S(1)	2S(3)	17
E. greeri	1	2C	2S(1)	3C	30	2	2C	2S(1)	2S(3)	30
E. madaraszi	1–2	1/2C	2C/2S(1)	3C	18	1	2C	2S(1)	2S(3)	18
E. andamensis	2	1	2C	3C	1	2	2C	2S(1)	2S(3)	1
E. dissimilis (M. hodgarti)	1	2C	2S(1)	3C	1	2	2C	2S(1)	2S(3)	2
E. gansi	2	2C	2S(1)	3C	2	2	2S(1)	2S(1)	2S(3)	2
E. macularia	2	2C	2S(1)	3C	4	2	2S(1)	2S(1)	2S(3)	4
E. macularia (L. dawsoni)	2	2C	2S(1)	3C	1	2	2S(1)	2S(1)	2S(3)	1
E. multifasciata (M. monticola)	2	2C	2S(1)	3C	1	2	2C	2S(1)	2S(3)	2
E. nagarjuni	1–2	1/2C	2C/2S(1)	3C	2	1	2C	2S(1)	2S(3)	1
E. rugiféra	2	1	2C	3C	1	1	2C	2S(1)	2S(1)	1
E. tytleri	2	1	2C	3C	1	2	2C	2S(1)	2S(3)	1

fourth digit of pes 16–18; dorsolateral stripe narrow, a half-scale wide; dorsal coloration bronze brown with series of uninterrupted dark brown longitudinal lines; and skin fragile.

Description.—Maximum SVL 73.0 mm; head relatively long (head length 20.3–24.1% of SVL); supranasals widely separated; frontonasal as wide as long; postnasals absent; prefrontals widely separated, extended to lateral surface of snout; frontal as twice long as wide; supraoculars four, first supraocular not in contact with frontal, second supraocular in contact with frontal; frontoparietals paired, longer than wide, in contact with second, third, and fourth supraoculars; interparietal present, as wide as long; interparietal shorter than frontoparietal; parietal eye present; parietals completely separated by interparietal; nuchals one pair; eye relatively large (eye diameter 25.8-35.7% of head length); supraciliaries five, third one distinctly elongate; pretemporals two, only upper in contact with parietal; primary temporals two; secondary temporals two, separated by tertiary temporal, equal in size; supralabials seven, fifth in subocular position; postsupralabials two; lower eyelid scaly; external ear opening circular, with short, blunt ear lobules, 27.5-42.1% of eye diameter; mental wider than long; postmental wider than long, in contact with first infralabial and partially contacting second infralabial; infralabials seven; enlarged chin shields three pairs; first pair of chin shields in contact medially, second pair separated by a single median scale, and third pair separated by three scales medially; third pair of chin shields separated from infralabial row by a single scale row; body relatively short (trunk length 49.0–57.3% of SVL); skin fragile; keels on dorsal and lateral scales 3–5; outer preanals overlap inner; dorsal body scale carination extends onto nuchals, parietals, supraoculars, and temporals; paravertebrals 31-34; ventrals 46-52; longitudinal scale rows at midbody 28–32; SVL 40.5–75.0 mm (n = 18); SVL 4.1–4.9 times head length; tail length 82.0–115.0 mm (n = 5); unregenerated tail length 1.4-1.9 times SVL. Limbs well developed, pentadactyl; forelimb 30.7-38.1% of SVL, and hindlimb length 42.9-54.7% of SVL; subdigital lamellae under fourth digit of manus 11-13 and subdigital lamellae under fourth digit of pes 16-18; dorsolateral stripe narrow, a half-scale wide; dorsal coloration bronze brown with series of spots.

Details of Holotype.—Male; SVL 69.0 mm; supraciliaries five; longitudinal scales across midbody 30; paravertebrals 34; ventrals 52; tail length 89.0 mm (broken); forelimb length 37.0% of SVL, hind-limb length 54.3% of SVL; subdigital lamellae under fourth digit of manus 12, under fourth digit of pes 17; dorsal coloration bronze brown.

Color in Life.—Sexes alike. Bronze brown dorsum coloration with longitudinal series of black spots forming four uninterrupted lines; dorsolateral sides of head and body dark brown with scattered yellow-colored spots. Supralabials, ventral side of head, belly bright yellow colored. Limbs dark brown with light brown spots scattered dorsally. Yellowish brown dorsolateral line begins behind nostrils, and extends on to body and base of tail.

Color in Preservative.—General body color dusky brown; two distinct dark narrow uninterrupted longitudinal lines begin behind nuchals, extend to midbody region; dorsolateral sides dusky brown; ventrolateral and ventral sides dusky white; dorsolateral stripe indistinct.

Etymology.—The species name is a patronym in the Latin genitive singular, in honor of Allen E. Greer, for his special commitment to the scincid fauna of the world and for providing evidence for undescribed *Eutropis* species from Sri Lanka (see Greer and Nussbaum, 2000).

Distribution and Natural History.—Eutropis greeri may be endemic to Sri Lanka; it occurs on the first and second peneplains of Sri Lanka (up to ~500 m) and within rainforest areas (forest reserves) of the wet zone, in these localities: Kanneliya, Kottawa-Kombala, Dediyagala (Southern Province), Kitulgala (Western Province), and Morningside (Sabaragamuwa Province). It is sympatric with these lizard fauna: L. fallax, Lankascincu gansi, Lankascincu dorsicatenatus, Lankascincu greeri, E. carinata, and O. wiegmanni. Eutropis greeri is a terrestrial species, often observed in leaf litter in lowland rain forests of Sri Lanka.

Comparisons.—Here I compare E. greeri to congeners from Asia, listing only opposing suites of character states. Eutropis andamanensis: six supraciliaries, primary temporal single; E. austini: first supraocular contact with frontal; interparietal as long as frontoparietal; 5-7 keeled dorsal body scales up to nuchals; dorsolateral stripe one and a half scale wide; skin not fragile, dorsum copper brown color without uninterrupted dark longitudinal lines; E. beddomei: prefrontals in contact medially, six supraciliaries; E. carinata: supraciliaries 6-7, maximum SVL 122.0 mm, first pair of chin shields separated by a single median scale; E. clivicola: prefrontals in contact medially, first pair of chin shields separated by a single median scale; E. dissimilis: supranasals in contact medially, prefrontals in contact medially, lower eyelid with a transparent window; E. bibronii: lower eyelid with a transparent window, subdigital lamellae under fourth digit of pes 20–22; E. floweri: first pair of chin shields separated by a single median scale, paravertebral scales 40-43; E. gansi: first pair of chin shields separated by a single median scale, both pretemporals in contact with parietal; E. innotata: lower eyelid with a transparent window, six supraciliaries; E. longicaudata: supranasals in contact medially, postnasal present; E. macularia: first pair of chin shields separated by a single median scale, both pretemporals in contact with parietal; E. madaraszi: single postsupralabial, well-developed median keels in all digits, copper brown dorsum coloration; E. multifasciata: prefrontals in contact medially, postnasal present; E. nagarjuni: two pairs of nuchals, prefrontals in contact medially; E. novemcarinata: supranasals in contact medially, lower eyelid with a transparent window; E. quadricarinata: prefrontals in contact medially, postnasal present; E. rugifera: 22–27 subdigital lamellae beneath fourth digit of pes; E. tammanna: prefrontal in contact medially, 37–40 paravertebrals, reddish gular and throat coloration, no dorsolateral stripe; E. trivittata: supranasals in contact medially, prefrontals in contact medially; E. tytleri: prefrontals in contact medially, postnasal present.

*Remarks.*—*Eutropis greeri* is illustrated by Somaweera and Somaweera (2009) in figs. 255A, B (identified as *E. floweri*) and fig. 257A (identified as *E. madaraszi*).

Eutropis madaraszi (Méhely, 1897) (Fig. 1, 3, 5, Tables 1–3)

Eutropis floweri Somaweera and Somaweera, 2009, in part Mabuya madaraszi Taylor, 1950 Mabuya madaraszi Méhely, 1897

A neotype is designated for *E. madaraszi* because the syntypes were destroyed by fire (see ICZN (1999), Art. 75.3. and 75.3.4.).

*Neotype.*—(By present designation) WHT 7001, male, 68.0 mm SVL, Kalahagala near Polonnaruwa, 07°52°N, 80°54′E, 60 m, 5 June 2003, collected by S. Batuwita.

Diagnosis.—Maximum SVL 70.0 mm; supranasals widely separated; prefrontals widely separated; postnasals absent; second supraocular in contact with frontal; frontoparietals paired, as long as wide; parietal eye present; parietals completely

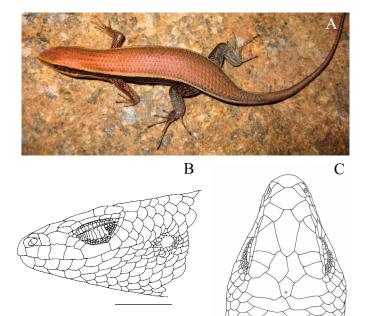


Fig. 5. WHT 7001, neotype of *E. madaraszi*, A, in life; B, C, lateral and dorsal views of head, respectively. Scale bar 5 mm.

separated by interparietal; nuchals one pair; supraciliaries five, third distinctly elongate; pretemporals two, either only the upper in contact or both in contact with parietal; primary temporal 1 or 2; secondary temporals two, separated by a tertiary temporal; supralabials seven; postsupralabial one; lower eyelid scaly; infralabials seven; first pair of chin shields in contact medially; dorsal and lateral body scale carination extends up to nuchals; paravertebrals 37–42; ventrals 48–59; longitudinal scale rows at midbody 28–31; keels on dorsal and lateral body scales 3–7; subdigital lamellae under fourth digit of pes 15–19; all digits with well developed median keels; dorsal coloration copper-brown with 6–8 series of dark brown longitudinal lines, and skin not fragile.

Redescription.—(Based on neotype and recent material; see Appendix 2) maximum SVL 70.0 mm; head relatively short (head length 19.0-24.1% of SVL); supranasals widely separated; prefrontals widely separated; postnasals absent; frontonasal wider than long; supraoculars four, second supraocular in contact with frontal; frontoparietals paired, as long as wide, in contact with second, third, and fourth supraoculars; interparietal present, longer than wide; parietal eye present; parietals completely separated by interparietal; nuchals one pair; eye relatively large (eye diameter 26.3-33.6% of head length); supraciliaries five, third distinctly elongate; pretemporals two, either only the upper (n=8) or both (n=9) in contact with parietal; primary temporals 1 (n = 2) or 2 (n = 15); secondary temporals two, equal, in contact each other or separated by tertiary temporal; tertiary temporals three; supralabials seven, fifth in subocular position; postsupralabial one; lower eyelid scaly; external ear opening circular, with short, blunt ear lobules, 23.3-50.0% of eye diameter; mental wider than long; postmental wider than long, in contact with first infralabial and partially contacting second infralabial; infralabials seven; three pairs of enlarged chin shields; first pair of chin shields in contact medially, second pair of chin shields separated by a single median scale, and third pair separated by three median scales; third pair of chin shields separated from infralabial row by a single scale row. Body

relatively short (trunk length 49.3–58.8% of SVL); keels on dorsal and lateral scales 3–7; outer preanals overlap inner; paravertebrals 37–42; ventrals 48–59; longitudinal scale rows at midbody 28–31; SVL 29.5–70.0 mm (n=17); 4.2–5.3 times head length; unregenerated tail length 1.5–1.6 times of SVL (n=2). Limbs well developed, pentadactyl; all digits with well-developed median keels; forelimb length 29.7–40.7% of SVL and hind-limb length 39.8–53.9% of SVL. Subdigital lamellae under fourth digit of manus 11–14 and subdigital lamellae under fourth digit of pes 15–19.

Details of Neotype.—Male; SVL 68.0 mm; supraciliaries five; longitudinal scales across midbody 32; paravertebrals 39; ventrals 53; tail length 104.0 mm (broken); forelimb length 32.4% of SVL and hind-limb length 50.0% of SVL; subdigital lamellae under fourth digit of manus 12 and subdigital lamellae under fourth digit of pes 18.

Color in Life.—General body color copper brown; dorsolateral sides of head and body black with few scattered light brown spots; ventrolateral sides of head and body yellowish brown; ventral side of body yellowish brown. Forelimbs copper brown with series of black spots forming lines; hind limbs and digits black with few scattered light yellow spots. Yellow-colored dorsolateral line begins behind eye continues on to body and extends to base of tail; tail copper brown. Males with six indistinct longitudinal lines on dorsum; females with six to eight distinct dark longitudinal lines on dorsum.

Color in Preservative.—General body color olive brown; dorsal side of snout copper brown. Dorsolateral sides of body dusky brown. Ventrolateral sides and ventral side of body dusky white. Distinct dusky white colored dorsolateral stripe present. Infralabials with black spots; limbs olive brown.

Etymology.—Eutropis madaraszi was named after Julius v. Madarász, also known as Gyula Madarasz (1858–1931) of the Musei Nacionalis Hungarici (Korsós, 2008).

Distribution and Natural History.—Eutropis madaraszi has been observed on the first peneplain of Sri Lanka, within the dry and intermediate zones (up to ~200), at these localities: Tissamaharama (Southern Province), Polonnaruwa (North Central Province), Mundel and Kurunegala (North Western Province), and Allauwa (Sabaragamuwa Province); and re-identified records of Somaweera and Somaweera's (2009) from Wilpattu National Park (North Central Province) and Panama (Eastern Province). It is sympatric with E. tammanna at Polonnaruwa and Tissamaharama, with E. carinata and L. fallax at Kurunegala and Allauwa, and with E. floweri in Mundel. Eutropis madaraszi is a semiarboreal lizard, frequently observed on rock surfaces and on tree buttresses.

Comparisons.—Here I compare E. madaraszi to congeners from Asia, listing only opposing suites of character states. Eutropis andamanensis: six supraciliaries, primary temporal single, subdigital lamellae under fourth digit of pes 29; E. austini: only upper pretemporal contact with parietal, two postsupralabials, lacking well-developed median keels under subdigital lamellae; E. beddomei: prefrontals in contact medially, six supraciliaries; E. bibronii: lower eyelid with a transparent window, 20-22 subdigital lamellae under fourth digit of pes; E. carinata: supraciliaries 6-7; maximum SVL 122.0 mm, first pair of chin shields separated by a single median scale; E. clivicola: prefrontals in contact medially, first pair of chin shields separated by a single median scale; E. dissimilis: supranasals in contact medially, prefrontals in contact medially, lower eyelid with a transparent window; E. floweri: first pair of chin shields separated by a single median scale, dorsum with a paired series of transverse black



Fig. 6. Holotype of E. macularia, ZSI 2344.

markings; E. gansi: postsupralabials two, first pair of chin shields separated by a median scale; E. greeri: postsupralabials two, skin fragile, paravertebral scales 31–34, body dorsum bronze brown; E. innotata: lower eyelid with a transparent window, six supraciliaries; E. longicaudata: supranasals in contact medially, postnasal present; E. macularia: first pair of chin shields separated by a median scale, subdigital lamellae lacking median keels; E. multifasciata: prefrontals in contact medially, postnasal present; E. nagarjuni: two pairs of nuchals, prefrontals in contact medially; E. novemcarinata: supranasals in contact medially, lower eyelid with a transparent window; E. quadricarinata: prefrontals in contact medially, postnasal present; E. tammanna: prefrontals in contact medially, dorsolateral stripe absent, SVL up to 54.0 mm; E. rugifera: 22–27 subdigital lamellae under fourth digit of pes; E. trivittata: supranasals in contact medially, prefrontals in contact medially; E. tytleri: prefrontals in contact medially, postnasal present.

Remarks.—The photographed individuals (fig. 256A, G) labeled as E. macularia macularia by Somaweera and Somaweera (2009) are E. madaraszi. Mausfeld and Schmitz (2003) identified genetic differences between samples identified as E. macularia and E. madaraszi; however, E. madaraszi as newly defined here is not known to occur at the locality given for their sample, Gammaduwa. The sequences identified as E. madaraszi likely represent E. austini.

## DISCUSSION

The holotype of *E. macularia* is in very poor condition (Fig. 6) and many character states cannot be scored; however, it has both pretemporals in contact with the parietal and the first pair of chin shields separated by a median scale. These same two character states also are present in the holotype of *Lygosoma dawsoni* Annandale from Travancore, India, a name regarded as synonymous with *E. macularia* by Smith (1935), and also are present in the morphologically similar south Indian species *E. gansi*. The three Sri Lankan species *E. austini*, *E. greeri*, and *E. macularia*. All three Sri Lankan species have the first pair of chin shields in medial contact, without an intervening ventral scale, and *E. austini* and *E. greeri* also have the lower pretemporal squeezed below the upper pretemporal and no longer contacts the parietal (see Greer and Nussbaum, 2000).

The latter character is variable in  $E.\ madaraszi$ , which has either only the upper pretemporal in contact with the parietal (n=8), or both pretemporals in contact with the parietal (n=9). In addition to the state of the first pair of chin shields,  $E.\ madaraszi$  differs from  $E.\ macularia$  in having well-developed medial keels on the subdigital lamellae (vs. unkeeled lamellae). As each Sri Lankan population previously ascribed to  $E.\ macularia$  is distinguishable from the type of that species and the type of its synonym  $L.\ dawsoni$  and also from three other topotypes (Appendix 2) by two independent character states, I conclude that  $E.\ macularia$  does not occur in Sri Lanka.

All Indian species for which the types were examined (*n* = 13), together with most Sri Lankan species (*E. beddomei*, *E. bibronii*, *E. carinata*, and *E. floweri*) have both pretemporals in contact with the parietal. Only *E. austini* and *E. greeri* consistently show the derived condition of a single pretemporal contacting the parietal (Greer and Nussbaum, 2000, figs. 1C, D).

The E. madaraszi types were destroyed in a fire (Korsós, 2008), and in their absence, the description is the only evidence available for identification of the species. Most character states mentioned by Méhely (1897), however, including size, number of longitudinal scale rows at midbody, and coloration, are shared by several species. The only character in the description that is useful in distinguishing this species from other described Sri Lankan Eutropis is the nature of the subdigital lamellae, "with distinct, well developed, long tooth-like median keels" (Méhely, 1897). This character is pronounced in the Eutropis species occurring in the intermediate and dry zone forests of Sri Lanka, and accords with the type localities for E. madaraszi (Kalewewa and Madatugama; Fig. 3) and with the subsequent redescription of this species by Taylor (1950). The two other species described here, E. austini and E. greeri, do not occur in the intermediate and dry zones of Sri Lanka. To stabilize the application of the name *E. madaraszi*, a neotype is designated.

The well-developed median keels on the subdigital lamellae of *E. madaraszi* are shared with the south Indian species *E. gansi*; however, *E. gansi* differs from *E. madaraszi* in having the first pair of chin shields separated medially. *Eutropis clivicola*, another species closely related to *E. macularia*, also lacks medial contact between the first pair of chin shields (Inger et al., 1984). Future studies on the species of the Indian subcontinent will be needed to clarify the taxonomy of these closely related species, and their relationship with the Sri Lankan species.

After examination of their voucher specimens (now lodged in NMSL), I reidentify the Sri Lankan material identified as *E. macularia* by Das et al. (2008): CCA 1771 represents *E. greeri*; CCA 2388 and CCA 2380 represent *E. madaraszi*, and CCA 2360 and 2364 represent *E. carinata*. These reidentifications resolve the polyphyly noted by Das et al. (2008) for *E. macularia*, and provide further evidence for the distinction of *E. greeri*. The sequence divergence between *E. greeri* and *E. madaraszi* is of greater magnitude than that between *E. tammanna* and a Bhutan sample of *E. macularia*, as is the divergence between *E. greeri* + *E. madaraszi* from *E. tammanna* + *E. macularia* (Das et al., 2008).

The arrangement of the upper anterior temporal scale of *Eutropis* is potentially important for both species taxonomy and phylogenetics (Greer and Nussbaum, 2000, as *Mabuya*). *Eutropis* species from Sri Lanka show only the derived condition described by Greer and Nussbaum (2000). Greer and Broadley (2000) also comment on the significance of skin fragility as a

potential apomorphic state, present in three Sri Lankan *Eutropis*: *E. floweri*, *E. greeri*, and *E. tammanna*.

A third character of potential importance in assessing relationships among *Eutropis* is the arrangement of the chin shields (Table 3). The Sri Lankan *Eutropis* species fall into two groups based on this character. Four species (*E. beddomei*, *E. bibronii*, *E. carinata*, and *E. floweri*), together with most Indian species I have examined based on types at ZSI (all except *E. andamensis* and *E. tytleri*) have the first pair of chin shields separated by a single median scale, whereas *E. austini*, *E. greeri*, *E. madaraszi*, and *E. tammana* have the first pair of chin shields in broad medial contact (Fig. 2D vs. 2E).

Genetic analyses of relationships among Sri Lankan *Eutropis* (Das et al., 2008) have so far sampled species only from the wet, dry, and intermediate zones (*E. carinata*, *E. greeri*, *E. madaraszi*, and *E. tammanna*). Species that are largely restricted to the semiarid zone (*E. beddomei*, *E. bibronii*, and *E. floweri*) have not yet been sampled due to their geographic limitation to the Northern and North Eastern Provinces of Sri Lanka, to which access has been restricted during the three decades of civil conflict. The specimens of *E. beddomei* and *E. bibronii* examined for this study were collected prior to 1950. Fortunately, the end of the conflict now provides the opportunity to collect new material from these areas, and will clarify the relationships among the remaining Sri Lankan *Eutropis* species.

## KEY TO THE SRI LANKAN SPECIES OF EUTROPIS

	Lower eyelid scaly
	Lower eyelid with a transparent window E. bibronii
2	First pair of chin shields in medial contact
-	First pair of chin shields separated by a single median
	scale 4
3	Prefrontals widely separated; a distinct dorsolateral
	stripe present 5
-	Prefrontals in medial contact; dorsolateral stripe absent
	E. tammanna
4	Supranasals widely separated 6
-	Supranasals in broad medial contact E. beddomei
5	Paravertebral scales 34–42; dorsolateral stripe one and a
	half-scales wide; coloration copper brown; skin not
	fragile (scales not easily lost)
-	Paravertebral scales 31–34; dorsolateral stripe half-scale
	wide; coloration bronze brown skin fragile (scales easily
	lost when handled) E. greeri
6	Dorsum lacking a paired series of transverse black
	markings; body scales with 5–7 keels E. carinata
-	Dorsum with a paired series of transverse black
	markings; body scales with three keels E. floweri
7	Postsupralabial single; well developed median keels
	under subdigital lamellae; 6-8 longitudinal series of
	stripes on dorsum (prominent only on nape in males)
	E. madaraszi
-	Postsupralabials two; weakly developed median keels
	under subdigital lamellae; no longitudinal stripes on
	dorsum F austini

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APPENDIX 1. Equimax rotated principal-component-based factor analysis.

Rotated factor loadings and communalities. Equimax rotation.

Variable	Factor 1	Factor 2	Communality
SVL	0.960	0.200	0.961
Trunk length	0.969	0.108	0.951
Head length	0.945	0.283	0.973
Eye diameter	0.894	0.328	0.906
Forelimb length	0.878	0.415	0.943
Hind-limb length	0.850	0.439	0.915
Ear length	0.228	0.965	0.983
Variance	5.0980	1.5357	6.6337
% Var	0.728	0.219	0.948

## APPENDIX 2. Comparative material examined

Eutropis andamensis: syntype, ZSI 15084, Andaman Island. Eutropis austini sp. nov.: MCZ R32187, MCZ R32188, Central Province, Ceylon (Sri Lanka); FMNH 167032, FMNH 167033, FMNH 167034, FMNH 167029, FMNH 167030, FMNH 167031, Central Province, Ceylon (Sri Lanka); CM 67611, Sri Lanka. Eutropis beddomei: ZSI 2356 (holotype of Euprepes septemlineatus Blanford), "Pem Ganga valley, S.E. Berár"; NMSL RSK uncatalogued (three specimens), Kachchai; NMSL RSK uncatalogued (two specimens), Muhamalai near Pallai. Eutropis bibronii: NMSL RSK 1, 'Challani', Sri Lanka; NMSL RSK 1, Nikaweratiya; Thabbowa, Sri Lanka. Eutropis floweri: WHT 6767, Mundel near Puttlam; WHT 6980, Trincomalee; WHT 6978, 7002, Arugam Bay near Potuvil. Eutropis carinata: NMSL RSK 6A (holotype of E. carinata lankae), Hambegamuwa, Sri Lanka; WHT 1837, Kanneliya Forest Reserve, Sri Lanka; WHT 6761, Puwakpitiya Knuckles Range, Sri Lanka; WHT 7008, Wakwella, Sri Lanka; WHT 6989, 6975, 6994, Kandewatta (Galle), Sri Lanka; WHT 6996, Nawinna (Galle), Sri Lanka; WHT 7006, Hiyare Forest Reserve, Sri Lanka; WHT 7005, Warakawehera near Kurunegala, Sri Lanka; WHT 6759, 6771, Agra Arboretum, near Torrington Estate, Agarapatana, Sri Lanka; NMSL CCA 2360, 2364, Sri Lanka; MCZ R7660, 193526, Goalpara District, Assam, India. Eutropis dissimilis: ZSI 19801 (holotype of Mabuya hodgarti Hora), Rawalpindi, Punjab, India. Eutropis gansi: ZSI 24826 (holotype), ZSI 24828 (paratype), Kalakkad Tiger Reserve, Tirunelveli District, Tamil Nadu State, India. Eutropis greeri sp. nov.: CM 89450, CM 89451, Sri Lanka. Eutropis macularia: ZSI 2344 (holotype), 'Rungpore, Bengal?'; ZSI 16170 (holotype of L. dawsoni), Maddathoray, Travancore; FMNH 134870, Goalpara District, Assam, India; CM 25346, West Bengal, India; CM 25357, Bangladesh. Eutropis madaraszi: (All from Sri Lanka) WHT 0721, Kumaradola Group, Moneragala; WHT 6988, Kohombagapalessa near Tissamaharama; WHT 6995, Kalahagala near Polonnaruwa, close to Wasgamuwa National Park; WHT 6964, 6960, Sandagala near Tissamaharama; WHT 6985, 7004, Ridigama near Kurunegala; WHT 6974, Ihala Kalugala, Allauwa; NMSL RSK 6, Trincomalee; NMSL RSK 8, Buttala; NMSL RSK 8, Batticoloa; NMSL uncatalogued, Horowpatana; NMSL uncatalogued, Polonnaruwa; NMSL uncatalogued, Vakanepi; NMSL RSK 8, Wanathavillu; NMSL CCA 2388, NMSL CCA 2380, Sri Lanka; FMNH 142386, Uva Province, Ceylon (Sri Lanka). Eutropis multifasciata: ZSI 2362 (syntype of Mabuia monticola). Eutropis nagarjuni: ZSI 21170 (holotype), ZSI 21171(paratype), Vijaypuri South, Andra Pradesh, south central India. Eutropis quadricarinata: ZSI 2357 (holotype of Mabuya anakular Annandale), Cachar, India. Eutropis rugifera: ZSI 2350 (holotype), Camorata, Nicobar Island. Eutropis tytleri: ZSI 2273 (holotype), Andaman Island, Bay of Bengal, India. Eutropis tammanna: (All from Sri Lanka) NMSL CCA 2365 (holotype), Buttala; NMSL CCA 2385 (paratype), Rambewa; WHT 6962, 6971, 6976, 6981, 6982, 6991, Kohombagapalessa near Tissamaharama; WHT 6963, Kalahagala near Polonnaruwa; WHT 6763, Buttala; WHT 6764, 6765, Anuradhapura; WHT 1952, Sigiriya; WHT 1940A, 1940B, Hasalaka near Mahiyanganaya; WHT 6766, Mundel near Puttlam.