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First record of the genus *Curteria* (Acari: Erythraeidae) from Iran

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The family Erythraeidae is a relatively high diverse group, which consist of seven subfamilies (Abrolophinae Witte, 1995, Balaustiinae Grandjean, 1947, Callidosomatinae Southcott, 1957, Erythraeinae Robineau-Desvoidy, 1828, Leptinae Billberg, 1820, Myrmicotrombiinae Southcott, 1957 and Phanolophinae Southcott, 1946) (Mąkol & Wohltmann 2012). *Curteria* is one of 26 genera included in Erythraeinae. Four larval species of *Curteria* have been reported from the world until now, namely *C. episcopalis* (C. L. Koch, 1837) from Finland, Germany, Poland, The Netherlands, *C. southcotti* Gabryś, 1992 from Germany, Hungary, Poland, *C. ernesti* Haitlinger, 2004 from Spain (Canary Islands) and *C. duzgunesae* (Saboori, Çobanoğlu & Bayram, 2007) from Turkey (Gabryś 1992; Haitlinger 2004; Wohltmann *et al.* 2007; Saboori *et al.* 2007; Mąkol & Wohltmann 2012). Wohltmann *et al.* (2007) described the larval instars of *Curteria episcopalis* and *C. southcotti* for the first time based on specimens reared in the laboratory. Saboori *et al.* (2009) considered the genus *Zhangiella* Saboori *et al*., 2007 as a junior synonym of *Curteria* Southcott, 1961 and discussed about the taxonomic state of the genus *Zhangiella* and differences between the species *C. duzgunesae* with the other species of *Curteria*. Until now, this genus have not been reported from Iran. In this paper, *C. episcopalis* is reported as new to the Iranian mite fauna.

During 2012–2013, the soil mite fauna of Alborz and Markazi province, Iran was investigated. Soil samples were collected and mites were extracted using Berlese funnel and separated under a stereomicroscope. After clearing in Nesbitt's fluid, the mites were mounted in Faure or Hoyer's medium (Walter & Krantz 2009) on microscope slides. The specimens were identified as *C. episcopalis* (C.L. Koch, 1837). This is the first record of the genus and species of *C. episcopalis* for mite fauna of Iran. Measurements (given in micrometers) were made using a BX 51 phase contrast Olympus microscope equipped with a drawing tube.

***Curteria* Southcott, 1961: 488.**
***Curteria episcopalis* (C. L. Koch, 1837)**
The specimens collected from Iran fit to the data of *C. episcopalis* (C.L. Koch, 1837) given by Wohltmann *et al*. (2007) (Tables 1& 2) except for the scutum which is punctate (vs. smooth).

Table 1. Leg chaetotaxy of *Curteria episcopalis* larvae.

Character	Wohltmann *et al.* (2007) (n= 12)	Alborz province (n= 2)*	Markazi province (n= 2)	Character	Wohltmann *et al.* (2007) (n= 12)	Alborz province (n= 2)*	Markazi province (n= 2)
Palp Tr	0n	0n	0 n	Tr II	4n	4n	4n
Palp Fe	2n	2n	2 n	bFe II	5n	5n	5n
Palp Ge	1n	1n	1 n	tFe II	7n	7n	7n
Palp Ti	3n	3n	3n	Ge II	13–14n, 1κ	13 (11/12) n, 1κ	13n, 1κ
Palp Ta	5n, 1ω, 1ζ, 1z	5n, 1ω, 1ζ, 1z	5n, 1ω, 1ζ, 1z	Ti II	18 (17, 19) n, 2φ	19n, 2φ	19n, 2φ
Cx I	1n, 1*elcI*	1n, 1*elcI*	1n, 1*elcI*	Ta II	21–27n, 1ω, 2ζ, 1z	26/24 (24) n, 1ω, 2ζ, 1z	24n, 1ω 2ζ, 1z
Tr I	4n	4/3 (L/R)**	4n	Cx III	3n	3n	3n
bFe I	5n	5n	5n	Tr III	3n	3n	3n
tFe I	7n	7n	7n	bFe III	4n	4 (3) n	4n
Ge I	17 (15, 16) n, 1σ, 1κ	16n, 1σ, 1κ	16n, 1σ, 1κ	tFeIII	7n	7n	7n
Ti I	21–22n, 2φ, 1z, 1κ	23/21 (22) n, 2φ, 1z, 1κ	21n, 2φ, 1z, 1κ	Ge III	13 (12, 14) n	13 (11/12) n	13n
Ta I	27–32n, 1ω,1ε, 2ζ, 1z	30 (36) n, 1ω, 1ε, 2ζ, 1z	31n, 1ω, 1ε, 2ζ, 1z	Ti III	18–19n, 1φ	19 (17) n, 1φ	19n, 1φ
Cx II	4n	4 n	4 n	Ta III	21–25n, 1ζ	23/25 (22) n, 1ζ	21n, 1ζ

Explanations: Data observed in two specimens from Eshtehard and Khour regions. *= Data provided from Khour region are given in parentheses. **= Solidus between numbers shows different number of setae on left/right (L/R) legs.

Table 2. Metric data of *Curteria episcopalis* larvae.

Character	Wohltmann (2007) (n= 12)	(Alborz Province) (n= 2)*	(Markazi Province) (n= 2)	Character	Wohltmann (2007) (n= 12)	(Alborz Province) (n= 2)*	(Markazi Province) (n= 2)
Scutum_L	88−100	116 (106)	103 (108)	tFe I	30−40	47 (46)	50 (50)
Scutum_W	85−98	109 (104)	108 (123)	Ge I	70−81	79 (85)	88 (90)
AW	70−80	84 (82)	85 (85)	Ti I	73−86	84 (87)	93 (93)
PW	72−84	92	98 (98)	Ta I	67−80	79 (84)	83 (80)
SBa	10−13	12	13 (15)	Cx II	58−64	69 (67)	68 (73)
SBp	18−22	17 (21)	20 (23)	Tr II	35−40	52	50 (50)
AL	40−54	47 (50)	53 (50)	bFe II	39−54	50	48 (53)
PL	34−44	42 (40)	48 (45)	tFe II	34−41	47 (45)	50 (50)
ASens	31−40	42 (36)	45 (46)	Ge II	61−74	74	75 (85)
PSens	74−93	87 (94)	86 (93)	Ti II	62−76	79 (77)	88 (90)
pDS	37−60	57 (52)	53 (48)	Ta II	54−67	74 (77)	75 (70)
Palp Tr	16−20	30 (26)	17 (18)	Cx III	53−60	64	68 (70)
Palp Fe	40−57	45 (50)	54 (53)	Tr III	38−48	54 (52)	50 (50)
Palp Ge	28−36	35	25 (23)	bFe III	43−57	54 (59)	60 (58)
Palp Ti	17−20	15 (23)	21 (22)	tFeIII	42−51	57	60 (73)
odontus	32−36	30	33 (33)	Ge III	70−80	87	88 (90)
Palp Ta	7−12	10	9 (10)	Ti III	85−102	106 (109)	125 (128)
Cx I	45−55	57 (54)	63 (66)	Ta III	60−71	84	75 (80)
Tr I	34−43	52	48 (50)	IP	1099–1330	1406 (1416)	1438(1504)
bFe I	46−60	57 (54)	58 (55)				

Explanations: Data observed in two specimens from Eshtehard and Khour regions. *= Data provided from Khour region are given in parentheses.

Material examined

One specimen collected from soil sample (off host) in a grassland, 8 November 2012, in Eshtehard region, Jarou village (35° 72′ 08 ″ N, 50° 37′ 22 ″ E, 1175 m a.s.l.), one specimen collected from soil (off host) in a grassland, 13 January 2013, in Khour region (36° 03′ 84 ″ N, 50° 43′ 13 ″ E, 2000 m a.s.l.), both collected by Maryam Keshavarz Jamshidian from Alborz province and two specimens collected from soil under *Cydoniaoblonga* sp. (Rosaceae), Mahallat, Markazi province (50° 27′16″ E, 33° 55′ 09″ N, 1800 m a.s.l.), 10 March 2012, by Mohammad Reza Amin, all from Iran. Specimens are deposited in the Acarological collection, Jalal Afshar Zoological Museum, Faculty of Agriculture, University of Tehran, Karaj, Iran.

Distribution. Finland, Germany, Poland, The Netherlands (Mąkol & Wohltmann 2012) and Iran (Present study).

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