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FIRST RECORD OF APOLONIINAE IN CHINA—STRAELENSIA TIANI SP. N.—
WITH A REVISED DIAGNOSIS OF THE GENUS STRAELENSIA
(ACARIFORMES: LEEUWENHOEKIIDAE)1

by Ting-huan WEN2, Qing-yun TIAN3, Yan GUAN3 and Wan-li WANG4

ACARIFORMES
ACARIFORMES
APOLONIINAE
APOLONIINAE
STRAELENSIA
STRAELENSIA
CHINA
CHINA

ABSTRACT: A new species of the genus Straelensia, S. tiani sp. n., is described from
hares in China. This is the first record of the subfamily Apoloniinae in this country.
A revised generic diagnosis of the genus Straelensia is also given.

Résumé: Une espèce nouvelle du genre Straelensia, S. tiani sp. n., est décrite du lièvre
en Chine. C'est la première fois qu'un Acarien de la sous-famille des Apoloniinae a
été trouvé en Chine. Une diagnose révisée du genre Straelensia est également
présentée.

Mites of the subfamily Apoloniinae have not
previously been known in China (Wen, 1984). A
new species of the genus Straelensia is described
in this paper as the first record from this country. To
date four species, including the new species descri­
bed herewith, of the genus Straelensia were descri­
ded and it becomes necessary to revise the generic
diagnosis.

Genus Straelensia Vercammen-Grandjean
& Kolebinova, 1968

Straelensia Vercammen-Grandjean & Kolebinova,

Type species: Straelensia europaea Vercammen-
Grandjean & Kolebinova, 1968.

Diagnosis: SIF=4Bs-B/N-3-1000.0000

Apoloniinae of small size. Legs short and slender.
IP=500-700. Peniscutum (PSc) with anteromedian
projection (A) and one anteromedian seta
(AM=1). Legs P1 and P2 each with 2 tibialae (ti1
=2, ti2 =2) in short, bacilliform, located apically
on tibiae I (T1) and II (T2). Single genuala I (g1 =
1) short, g2 = 0, g3 = 0, and without tibialae III
(ti3 =0) (fg/ti3 =1000). One microtibiala I (lti1
=1), but no microgenualae (lg) and mastisetae on
leg III (P3) (fm = 0000). Eye lenses (Oc) 2/2, separated by epistrocal pleats. Cxoa II (Cx2)
with 2 coxalae (cx2 =2), the external one being shorter.
Body setae numerous, including sternal setae (St)
and ventral humeral setae (Hv). Gnathocoxa (Gx)
with sinuous striations posterolaterally. Galeal seta
branched or nude (gl = B/N). Palptarsus provided
with 4 branched setae and a subterminala (ft3
=4Bs).

Geographical distribution: Ethiopian and

1. An abstract of this article had been published in the “Proceedings of the Fifth National Congress of Acarology of China”, Nov.
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4. Shanghai Institute for Parasitic Diseases of Domestic Animals, Chinese Academy of Agriculture, Shanghai 200232, China.

Acarologia, t. XXXVII, fasc. 3, 1996.
**Palaearctic Regions.**

Hosts: Carnivora, Lagomorpha.

Included species:

*S. africana* Vercammen-Grandjean, 1971: South Africa (Transvaal), mongoose — *Herpestes sanguineus*;

*S. europaea* Vercammen-Grandjean & Kolebina, 1968: Bulgaria, wolf — *Canis lupus*;

*S. taurica* Hushcha, 1975: Ukraine (Crimea), hare — *Lepus europaenus*;

*S. tiani* Wen, Tian, Guan & Wang, sp. n.: China (Shanxi), hare — *Lepus capensis*.

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**Fig. 1:** *Straelensia tiani* sp. n.: idiosoma (id = idiosoma, d = dorsal view, v = ventral view).

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*Straelensia tiani* Wen, Tian, Guan & Wang, sp. n.

(Fig. 1-6)

Type material: Holotype (Ht) and 41 paratypes (Pt) *ex hares Lepus capensis* L. in Taihangshan Mountain area (1,500 m), Shanxi Province, China, Dec. 1984 and 5 May 1988, Q. Tian and colleagues. Holotype and 23 paratypes deposited in the Medical Acarology Laboratory, Shanghai Medical University; 18 other paratypes deposited in the Department of Parasitology, Shanxi Medical College.
Diagnosis: Small size, legs slender and short, gnathosoma (Gn) tiny, peniscutum (PSc) small, AM very short, body setae asymmetrically arranged. This new species is similar to *S. taurica* Hushch, 1975, from which it can be distinguished by the following characters:

1. Sternal setae more numerous, usually fSt: 2.2. (2.4.2)=12. St¹ composed of 2-3 sub-rows, and St² composed of 3-4 sub-rows (vs. fSt: 2.(2.4)=8); (2) scutum wider, AW 38, SB 19 (vs. 33 and 13, respectively); (3) body larger, Id = 530-689 × 324-516 (vs. 525-564 × 270-366); (4) IP = 631-693 (vs. 547-564); (5) cx³ eccentrically located (vs. close to the proximal and anterior margin of Cx³); (6) all specialized setae on legs longer; (7) ventral humeral setae (Hv) more numerous.

Description: SIF=4Bs-Ba-3-1000.0000; fp = B.B.BBB; IP = 665 (631-693); fSP = 7.7.7; PSc: Sh = -, A= +; Oc = 2/2 (A < P) fcx = 1.2.1; pc = +; fSt: (2.2). (2.4.2)=12(11-14); fRT = 1.1.1; AMs/AM, SB/PLs; fHv: 9/9 (4-11/6-12) = 18 (15-21); (ps + s + pt²) = 0; PL > AL > AM; fDS: 2+(17.9.8). (16.4). (16.8) (12.5) (26)=123; pt¹= N; fSc: AM + 2AL (+2PL); fVS: 66 a 20 = 86; t1 > t², Vf = -; Sn: Fl; NDV = 12+18+123+86 = 239; ot = -; Chs = 0; Sg = -, Trc = -; fBP¹=1.1.5.4.8.18; fBP²=1.2.4.4.6.15 (16); fBP³=1.2.3.3.6.12 (14).

Measurements (μm) (n = 20):

<table>
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<tr>
<th></th>
<th>AW</th>
<th>SW</th>
<th>(PW)</th>
<th>SB</th>
<th>ASB</th>
<th>PSB</th>
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<th>AM</th>
<th>AL</th>
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<th>HS</th>
<th>DS</th>
<th>VS</th>
<th>St¹</th>
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<tbody>
<tr>
<td>Ht</td>
<td>38</td>
<td>50</td>
<td>(90)</td>
<td>20</td>
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<td>23</td>
<td>(32)</td>
<td>13</td>
<td>24</td>
<td>43</td>
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<td>38</td>
<td>40/28</td>
<td>20/32</td>
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<td>Pt: m</td>
<td>35</td>
<td>45</td>
<td>(78)</td>
<td>18</td>
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<td>(25)</td>
<td>11</td>
<td>24</td>
<td>43</td>
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<td>33/28</td>
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<td>M</td>
<td>43</td>
<td>58</td>
<td>(105)</td>
<td>21</td>
<td>25</td>
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<td>(35)</td>
<td>16</td>
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<td>42</td>
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<td>23/33</td>
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<tr>
<td>X</td>
<td>38</td>
<td>54</td>
<td>(95)</td>
<td>19</td>
<td>23</td>
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<td>(30)</td>
<td>13</td>
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<td>46</td>
<td>32</td>
<td>38</td>
<td>35/31</td>
<td>21/29</td>
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<td>22</td>
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<tr>
<td>Id</td>
<td>530-698 × 324-516</td>
<td>Cx¹= 45 × 33</td>
<td>T¹= 62 × 18</td>
<td>P¹= 245</td>
<td>Oca = 8</td>
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<tr>
<td>Gn</td>
<td>83 × 81</td>
<td>Cx²= 54 × 25</td>
<td>T²= 48 × 17</td>
<td>P²= 200</td>
<td>Ocp = 10</td>
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<tr>
<td>Chs</td>
<td>21 (20-23)</td>
<td>Cx³= 50 × 26</td>
<td>T³= 53 × 15</td>
<td>P³= 220</td>
<td>A = 13 × 5</td>
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Colour of larva greyish-yellow when alive, idiosoma elongated, elliptical, with a shallow constriction behind Cx2. Epiostrocal pleats fine. Weakly chitinized PSc pentagonal, surrounded by broad pleats, anteromedian projection (A) small (10-16 × 4-9), punctae (pc) extremely sparse, posterior angle covered by the pleats extending its full appearance after body engorged. Bothridium of the sensilla (SB) small. Sensilla (Sn) short and slender with long, fine, branched whorl. Eyes without ocular plates, separated by epiostrocal pleats; lens of anterior eye (Oca) prominent and tomb-shaped, slightly smaller than posterior one (Ocp), which is almost flat. Body setae short with long barbs. HS longest. Dorsal setae arranged asymmetrically, first row subdivided into 3 sub-rows; 2nd to 4th rows each subdivided into 2. Ventral and caudal setae arranged irregularly. 60% of St1 subdivided into 2 rows (2.2), 35% of the specimens with 2.2.1 or 2.1.2, and 5% with 2.2.2. St2 composed of 5-11 setae, usually divided into 3 sub-rows (2.4.2). Ventral humeral setae (Hv) 7-10 unilaterally in the majority of specimens. Chelobase slender with chelostyle (Chs) tiny. Inner lateral surface of palpogenu and palptibia with fine, transverse striae. Gnathocoxa (Gx) with irregularly sinuous striae along posterolateral margin. Coxa II with 2 cx2 of unequal length, parallel at the posterolateral angle of the segment, lengths of cx1 25-30, cx2 14-17 and 23-28, cx3 25-27. Urstigma prominent, anteriad to Cx2, with a sharp angle extending inwards. Tarsalae I (t1) and II (t2) long and slender.

Remarks: The geographical distribution of the new species is limited due to the host inhabiting the shrub forests along the lower slopes of Taihangshan Mountain. The mite larvae were collected from the body hairs of the hare, which is presumed to be only host species of the new mite. The parasite has been collected in large numbers on many occasions from the same hare species at same locality. A large number of rats was caught same time as the hares, without larvae of the new species being found on them.

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