MORPHOLOGICAL DIFFERENCES BETWEEN EGG-GUIDES OF
SCAPTOMYZA (PARASCAPTOMYZA) PALLIDA
AND S. (P.) ELMOI

By
Satoshi Nishiharu
(Department of Biology, Tokyo Metropolitan University, Tokyo 158)

敬呈
岡田 明日先生

西治 敏
（東京都立大学 理学部 生物学教室）

動物分類学会誌 13号 別刷
昭和52年（1977）10月31日発行

Reprinted from
Proceedings of the Japanese Society of Systematic Zoology
No. 13（October, 1977）
MORPHOLOGICAL DIFFERENCES BETWEEN EGG-GUIDES OF
SCAPTOMYZA (PARASCAPTOMYZA) PALLIDA
AND S. (P.) ELMOI

Đ
Satoshi NISHIHARU
(Department of Biology, Tokyo Metropolitan University, Tokyo 158)

Scaptomyza (Parascaptomyza) pallida and S. (P.) elmoi are closely related species
and they were separated as different species by TAKADA in 1968 (TAKADA, 1970) based
on the morphological features of male genital organs. Thus, they have been able to be
discriminated only in the case of male.

I found, however, that their females can also be discriminated by the morphological
features of egg-guides as reported in this paper.

In the vicinity of Tokyo, both species seem to occupy different principal habitats.
They principally feed and breed on decaying leaves or stems of herbs (NISHIHARU, 1976;
KIMURA, 1976), and they can easily be collected by sweeping with nets on the herbs.
Although both species were collected at the same time in most cases, S. elmoi predominated
S. pallida in male number in the rural regions, while the relation was reverse in the forest
regions. The females collected in those cases could be devied in two types by the morpho-
logical features of their egg-guides, and proportions in number of the two types corres-
ponded to those of male individuals of the two species as shown in Table 1. Consequently,
I have drawn a conclusion that one type belongs to S. pallida and the other to S. elmoi.
The morphological differences are as follows and as shown in Figure 1.

Scaptomyza (Parascaptomyza) pallida (ZETTERSTEIN, 1847)

Japanese name: Kofuki-himeshojobae

Egg-guide: Lobe brown, apically rounded and with a black patch, and with about
three discal and eight marginal bristles, two subapical marginal ones being tooth-like, one
apical and one subapical marginal ones longest. Basal isthmus very short
Table 1. Net sweeping records over herbs

<table>
<thead>
<tr>
<th>Collection Site</th>
<th>Collection Date</th>
<th>S. pallida</th>
<th>S. elmoi</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>♂</td>
<td>♀</td>
</tr>
<tr>
<td>A</td>
<td>Apr. and May, 1975</td>
<td>19</td>
<td>31</td>
</tr>
<tr>
<td>A</td>
<td>Apr., 1976</td>
<td>17</td>
<td>7</td>
</tr>
<tr>
<td>B</td>
<td>June, 1976</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>C</td>
<td>May, 1976</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

A: Assakawa Experimental Forest, Nagasusa-machi, Hachioji.
C: Campus of Tokyo Metropolitan University, Meguro-ku, Tokyo.

Figures show individual numbers captured by sweepings.

Scaptomyza (Parasceaptomyza) elmoi TAKADA, 1970

Japanese name: Minami-kofukuri-meshiyobu.

Egg-guide: Lobe brown, apically pointed and with a black patch, and with about three discal and eight marginal bristles, two subapical marginal ones being tooth-like, one apical and one subapical marginal ones longest. One apical and three subapical marginal bristles more closely arranged than those of S. pallida. Basal isthmus very short.

By the way, I had an opportunity to examine a pair of Czechoslovak S. pallida, which had kindly been offered to me by Dr. Toyohi OKADA, and found that the features of the egg-guide coincided with those mentioned above.

Fig. 1. Egg-guide. A: Scaptomyza pallida (DEFTWISTEN), B: S. elmoi TAKADA.

Acknowledgement

I am very grateful to Dr. Toyohi OKADA who provided me with precious materials and

helped me with the manuscript and to Dr. Yano Kitazawa for reading and correcting the manuscript.

Literature

