Errata

In Nieuwsbrief Saltabel 9 (1993: p. 20-21) is bij het In Memoriam van G. Kruseman de naam van de auteur niet vermeld: **J.J. Wieringa**

R. Tienstra, 1992. Colour variation in two coastal populations of the wartbiter (*Decticus verrucivorus* (L.); Insecta: Orthoptera) in relation to biotope. Nieuwsbrief Saltabel 8: 10-24

p. 16, col. 2, l. 3-5 (table 2)
Erroneously the numbers of the VIIth instars by Cherrill & Brown have been given. The numbers of the green adults are as follows:

1987	97.1	N = 237
1988	87.8	N = 148
1989	98.2	N = 115

p. 20
'Photo 11' change in: 'Photo 10'
p. 21, col. 1, l. 1
after 'starlings (*Sturnus vulgaris*)' insert: 'and partridges (*Perdix perdix*'
p. 21, col. 1, l. 5
'samll' change in: 'small'
p. 22, col 2, l. 26
'Rubtzov' change in: 'Rubztov'

R. Tienstra, 1993. Dimensions in two coastal populations of the wartbiter (*Decticus verrucivorus* (L.)) in relation to biotope. Nieuwsbrief Saltabel 9: 13-16

p. 13, col. 1, l. 3
'R.T. Tienstra' change in: 'R. Tienstra'
p. 14, table 1.
female Thy (1992) green habitat: ovipositor 37,0 mm change in: 23,0 mm
p. 16, col. 2, l. 21
'Wedell, N., 1990' change in: ''Wedell, N., 1991'

Additions to Tienstra (1992, 1993)
New observations in the summer of 1993 have confirmed my hypotheses concerning coloration and dimensions of *D. verrucivorus*. I collected the following new data:

coloration
The combination of dark or olive brown lateral lobes of pronotum and ditto stains on hind femora in a considerable part of the specimens (Tienstra, 1992) seems to be rather characteristic for the Danish Thy population. In the summer of 1993 I also found pale green animals without any trace of black staining and stripes in 'green' habitats (photo 1). Other 'new' colour variations were, apart from, or in combination with, the former, pale brown dorsal side of pronotum (lateral lobes green) and pink tibia with eventually also upper part of hindfemora in this colour. I expect that this last feature is caused by the lacking of grey pigmentation of the tibia (femora), so that the typical red skin colour of these specimens, visible between the abdominal sternites, is allowed to 'shine through'. The belly of these animals has an orange colour (normally yellow).
Again I found several specimens with a brown or reddish brown body coloration. Among the not-green animals, individuals with a grey body coloration, with or without blue-green dorsal sides of head and pronotum and/or lateral lobes of it, predominate in the Gooi area (Holland), i.e. they form at least 3 % of the total population (Tienstra, 1992). In other populations of the wartbiter in Holland, Switzerland, germany and France I also found this colour variety. In the Thy Denmark population this variety seems to be missing (ca. 300 specimens studied in 1981, 1992 and 1993.

Dimensions
On a limestone slope near Hanstholm, as well as on the Bulbjerg, I found big specimens with long wings, in accordance with the measures of the 'green' habitat specimens from table 1 (Tienstra, 1993), but contrary to the small animals with (very) short wings, reported from a chalk slope in Sussex, England (Cherrill & Brown, 1990). Specimens from a heathland site in Dorset (England) are bigger (!) than those from the Sussex site, a 'green' habitat (Cherrill & Brown, 1992).
The large dimensions of the Danish Thy wartbiters, notably those from the 'green' habitats (table 1; Tienstra,

1993) are in contrast with the findings of Samways & Harz (1982), that the dimensions of body, femora and elytra of *Decticus verrucivorus* decrease tot the north and to the west of their geographical distribution, stretching from Britain to China. Only the ovipositor length (note the correction of table 1 (Tienstra, 1993) in this article!) is falling within the variation range of Scandinavia, as mentioned by these authors.

In all hitherto discussed colour and dimension varieties the possibillity of a genetic basis for inter-population differences should be taken into account.

Sympatric species

Other Orthoptera I found together with the wartbiter, in the heath and 'green' habitats respectively, are given in table 1 for the Gooi area, Holland, and in Appendix 1 for Thy, Denmark (Tienstra, 1992).

In 1993 I found on top of the Bulbjerg the big bushcricket *Tettigonia viridissima*. Its biotope (patches with *Urtica dioica* and *Salix repens* shrubs) is here, like in the Gooi, adjacent to that of *Decticus verrucivorus*. The acridid grasshoppers *Chorthippus parallelus* and *C. apricarius*, very common species in the agricultural area of northern Jylland, never found in the same biotope or adjacent to that of the wartbiter.

References

Cherrill, A.J. & V.K. Brown, 1990. The life cycle and distribution of *Decticus verrucivorus* (L.) within a chalk grassland in southern England. Biol. Conserv. 53: 125-143

Cherrill, A.J. & V.K. Brown, 1992. Variation in body size between heathland and chalk grassland populations of the bushcricket, *Decticus verrucivorus* (L.) (Orthoptera: Tettigoniidae) in southern England. Entom. Gazette 43: 77-82

Samways, M.J. & K. Harz, 1982. Biogeography of intaspecific morphological variation of the bushcrickets *Decticus verrucivorus* (L.) and *D. albifrons* (F.) (Orthoptera (F.) (Orthoptera: Tettigoniidae). J. Biogeogr. 9: 243-254

Tienstra, R., 1992. Colour variation in two coastal populations of the wartbiter (*Decticus verrucivorus* (L.); (Insecta: Orthoptera) in relation to biotope. Nieuwsbrief Saltabel 8: 10-24

Tienstra, R., 1993. Dimensions in two coastal populations of the wartbiter (*Decticus verrucivorus* (L.)) in relation to biotope. Nieuwsbrief Saltabel 9: 13-16

R. Tienstra

Photo 1. Female of *Decticus verrucivorus* with pale green coloration over the whole body. Localities of this colour variation in 1993: Thy, limestone slope near Hanstholm, coastal dunes of Hjardemål Klit, sandstone slopes of the Bulbjerg (all of these 'green' habitats). Only the hind tibiae of this specimen are pink.
Photo: R. Tienstra