

**Table S2.** The best ratio(s) of measurements for species discrimination obtained via the PCA ratio spectrum, and the best three ratios for species separation in pairs, obtained via the LDA ratio extractor.

The PCA ratio spectrum	Ratio for PC1			Ratio for PC2					
Male	hemelytron length/vertex width (distance between eyes)			antennal segment 1/scutellum width					
	cuneus length/vertex width (distance between eyes)			—					
Female	scutellum width/antennal segment 1			—					
The LDA ratio extractor	Ratio no. 1			Ratio no. 2			Ratio no. 3		
		Ranges (means) of measurements (mm)	delta.size		Ranges (means) of measurements (mm)	delta.size		Ranges (means) of measurements (mm)	delta.size
Male									
<i>Lygus pratensis</i> – <i>Lygus gemellatus</i>	Vertex InterOcDi/AntSeg2 length	0.38 – 0.45 (0.41)/ 1.50 – 1.75 (1.62) 0.43 – 0.48 (0.45)/ 1.40 – 1.73 (1.51)	0,0423	scutellum length/clavus length max	0.80 – 0.95 (0.88)/ 2.13 – 2.55 (2.32) 0.83 – 0.98 (0.92)/ 2.13 – 2.45 (2.29)	0,05480	Width of head/Height of head	1.05 – 1.20 (1.12)/ 0.83 – 0.93 (0.88) 1.05 – 1.20 (1.12)/ 0.85 – 0.98 (0.91)	0,07026
<i>Lygus punctatus</i> – <i>Lygus gemellatus</i>	Width of head/body width (widest part of hemelytron)	1.13 – 1.20 (1.16)/ 2.63 – 3.10 (2.91) 1.05 – 1.20 (1.12)/ 2.35 – 2.75 (2.55)	0,40073	hemelytron forewings length/cuneus length middle	4.50 – 5.60 (4.99)/ 1.15 – 1.53 (1.32) 4.00 – 4.80 (4.39)/ 1.10 – 1.33 (1.20)	0,43668	Pronotum length/Body length	1.15 – 1.53 (1.29)/ 5.90 – 7.20 (6.40) 1.00 – 1.23 (1.09)/ 5.30 – 6.30 (5.75)	0,46798
<i>Lygus wagneri</i> – <i>Lygus gemellatus</i>	Vertex InterOcDi/AntSeg2 length	0.43 – 0.50 (0.44)/ 1.48 – 1.80 (1.68) 0.43 – 0.48 (0.45)/ 1.40 – 1.73 (1.51)	0,09825	hemelytron forewings length/cuneus length middle	4.40 – 5.50 (4.85)/ 1.15 – 1.43 (1.31) 4.00 – 4.80 (4.39)/ 1.10 – 1.33 (1.20)	0,10137	Height of head/body width (widest part of hemelytron )	0.85 – 1.03 (0.94)/ 2.60 – 2.98 (2.82) 0.85 – 0.98 (0.91)/ 2.35 – 2.75 (2.55)	0,10317
<i>Lygus punctatus</i> – <i>Lygus pratensis</i>	Width of head/Vertex InterOcDi	1.13 – 1.20 (1.16)/ 0.43 – 0.50 (0.47) 1.05 – 1.20 (1.12)/ 0.38 – 0.45 (0.41)	0,31405	Width of head/AntSeg1 length	1.13 – 1.20 (1.16)/ 0.53 – 0.68 (0.62) 1.05 – 1.20 (1.12)/ 0.50 – 0.60 (0.55)	0,35139	Width of head/Pronotum length	1.13 – 1.20 (1.16)/ 1.15 – 1.53 (1.29) 1.05 – 1.20 (1.12)/ 0.95 – 1.20 (1.09)	0,38369
<i>Lygus rugulipennis</i> –	Pronotum length/cuneus length middle	1.05 – 1.25 (1.15)/ 1.00 – 1.15 (1.10)	0,19486	Cun clyp length/corium length	4.10 – 5.00 (4.57)/ 2.35 – 2.73 (2.52)	0,23543	Vertex InterOcDi/AntSeg2 length	0.40 – 0.45 (0.43)/ 1.35 – 1.70 (1.53)	0,27247

<i>Lygus pratensis</i>		1.05 – 1.20 (1.12)/ 1.10 – 1.40 (1.27)			4.30 – 5.60 (4.98)/ 2.33 – 2.83 (2.59)			0.38 – 0.45 (0.41)/ 1.50 – 1.75 (1.62)	
<i>Lygus wagneri</i> – <i>Lygus pratensis</i>	Cun clyp length/ Body length	4.80 – 5.60 (5.19)/ 5.70 – 6.80 (6.19) 4.30 – 5.60 (4.98)/ 5.10 – 7.00 (6.11)	0,09710	Vertex InterOcDi/ Pronotum length	0.43 – 0.50 (0.44)/ 1.03 – 1.40 (1.15) 0.38 – 0.45 (0.41)/ 1.05 – 1.20 (1.12)	0,09885	Vertex InterOcDi/ body width (widest part of hemelytron )	0.43 – 0.50 (0.44)/ 2.60 – 2.98 (2.82) 0.38 – 0.45 (0.41)/ 2.20 – 2.85 (2.56)	0,10253
<i>Lygus rugulipennis</i> – <i>Lygus punctatus</i>	Width of head/ Pronotum width	1.05 – 1.15 (1.10)/ 1.90 – 2.18 (2.03) 1.13 – 1.20 (1.16)/ 2.28 – 2.55 (2.37)	0,42076	Pronotum length/ hemelytron forewings length	1.05 – 1.25 (1.15)/ 3.50 – 4.60 (4.15) 1.15 – 1.53 (1.29)/ 4.50 – 5.60 (4.99)	0,51977	Body length/ cuneus length middle	4.90 – 5.90 (5.45)/ 1.00 – 1.15 (1.10) 5.90 – 7.20 (6.40)/ 1.15 – 1.53 (1.32)	0,5869
<i>Lygus wagneri</i> – <i>Lygus rugulipennis</i>	Width of head/ cuneus length middle	1.08 – 1.20 (1.13)/ 1.15 – 1.43 (1.31) 1.05 – 1.15 (1.10)/ 1.00 – 1.15 (1.10)	0,16200	Cun clyp length/ Body length	4.80 – 5.60 (5.19)/ 5.70 – 6.80 (6.19) 4.10 – 5.00 (4.57)/ 4.90 – 5.90 (5.45)	0,16593	AntSeg2 length/ Height of head	1.48 – 1.80 (1.68)/ 0.85 – 1.03 (0.94) 1.35 – 1.70 (1.53)/ 0.83 – 0.93 (0.87)	0,17047
<b>Female</b>									
<i>Lygus punctatus</i> – <i>Lygus gemellatus</i>	Width of head/ Hind Tibia length	1.10 – 1.25 (1.17)/ 2.60 – 3.08 (2.89) 1.08 – 1.23 (1.15)/ 2.45 – 2.80 (2.59)	0,2412	AntSeg1 length/ Height of head	0.55 – 0.68 (0.63)/ 0.90 – 1.03 (0.97) 0.45 – 0.63 (0.53)/ 0.88 – 1.00 (0.96)	0,29306	Vertex InterOcDi/ Height of head	0.45 – 0.55 (0.50)/ 0.90 – 1.03 (0.97) 0.43 – 0.53 (0.50)/ 0.88 – 1.00 (0.96)	0,33820
<i>Lygus wagneri</i> – <i>Lygus gemellatus</i>	Width of head/ body width (widest part of hemelytron)	1.08 – 1.23 (1.17)/ 2.73 – 3.03 (2.87) 1.08 – 1.23 (1.15)/ 2.45 – 2.88 (2.65)	0,18465	scutellum width/ corium length	0.95 – 1.20 (1.08)/ 2.45 – 2.98 (2.79) 0.95 – 1.20 (1.08)/ 2.43 – 2.78 (2.57)	0,21026	Hind Tibia length/ Height of head	2.43 – 3.03 (2.79)/ 0.88 – 1.03 (0.97) 2.45 – 2.80 (2.59)/ 0.88 – 1.00 (0.96)	0,29896
<i>Lygus punctatus</i> – <i>Lygus pratensis</i>	Width of head/ AntSeg1 length	1.10 – 1.25 (1.17)/ 0.55 – 0.68 (0.63) 1.10 – 1.25 (1.14)/ 0.48 – 0.60 (0.53)	0,25644	Width of head/ clavus length max	1.10 – 1.25 (1.17)/ 2.10 – 2.78 (2.55) 1.10 – 1.25 (1.14)/ 2.18 – 2.55 (2.31)	0,28048	AntSeg2 length/ Body length	1.55 – 1.83 (1.71)/ 5.10 – 6.70 (6.15) 1.10 – 1.25 (1.14)/ 5.10 – 6.60 (5.78)	0,29681
<i>Lygus wagneri</i> –	Width of head/ clavus length max	1.08 – 1.23 (1.17)/ 2.28 – 2.70 (2.51)	0,23668	Pronotum width/ body width (widest part	2.13 – 2.50 (2.32)/ 2.73 – 3.03 (2.87)	0,25816	Height of head/ scutellum length	0.88 – 1.03 (0.97)/ 0.83 – 1.00 (0.91)	0,29029

<i>Lygus pratensis</i>		1.10 – 1.25 (1.14)/ 2.18 – 2.55 (2.31)		of hemelytron)	2.08 – 2.53 (2.24)/ 2.43 – 3.05 (2.65)			0.88 – 1.00 (0.91)/ 0.85 – 0.99 (0.90)	
<i>Lygus rugulipennis</i> – <i>Lygus punctatus</i>	Width of head/ AntSeg1 length	1.05 – 1.25 (1.13)/ 0.50 – 0.58 (0.53) 1.10 – 1.25 (1.17)/ 0.55 – 0.68 (0.63)	0,30509	Width of head/ Pronotum width	1.05 – 1.25 (1.13)/ 1.88 – 2.53 (2.13) 1.10 – 1.25 (1.17)/ 2.08 – 2.60 (2.41)	0,35278	Width of head/ cuneus length middle	1.05 – 1.25 (1.13)/ 0.93 – 1.20 (1.10) 1.10 – 1.25 (1.17)/ 1.18 – 1.38 (1.28)	0,40518
<i>Lygus wagneri</i> – <i>Lygus rugulipennis</i>	Pronotum length/ body width (widest part of hemelytron)	1.05 – 1.33 (1.19)/ 2.73 – 3.03 (2.87) 1.03 – 1.38 (1.20)/ 2.18 – 3.03 (2.57)	0,25848	scutellum length/ body width (widest part of hemelytron)	0.83 – 1.00 (0.91)/ 2.73 – 3.03 (2.87) 0.80 – 1.05 (0.90)/ 2.18 – 3.03 (2.57)	0,29849	Width of head/ clavus length max	1.08 – 1.23 (1.17)/ 2.28 – 2.70 (2.51) 1.05 – 1.25 (1.13)/ 1.88 – 2.65 (2.30)	0,33886