

Character state matrix.

Electr. Suppl. 1, part 1. – to:

Beutel, R.G., Komarek, A. (2004):

Comparative study of thoracic structures of adults of Hydrophiloidea and Histeroidea with phylogenetic implications (Coleoptera, Polyphaga).

Org. Divers. Evol. 4(1-2): 1-34.

| | code | <i>Helophorus</i> | <i>Eumetopus</i> | <i>Hydrochus</i> | <i>Georissus</i> | <i>Spercheus</i> | <i>Berosus</i> | <i>Anacaena</i> | <i>Laccobius</i> | <i>Pelthydrus</i> | <i>Hydrobius</i> | <i>Cercyon</i> | <i>Margarinotus</i> | <i>Ontophilus</i> | <i>Syntelia</i> | <i>Sphaerites</i> | <i>Lucanus</i> | <i>Amphimallon</i> | <i>Hydraena</i> | <i>Ochthebius</i> | <i>Nicrophorus</i> | <i>Catops</i> |
|----|-------|-------------------|------------------|------------------|------------------|------------------|----------------|-----------------|------------------|-------------------|------------------|----------------|---------------------|-------------------|-----------------|-------------------|----------------|--------------------|-----------------|-------------------|--------------------|---------------|
| 1 | th1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 |
| 2 | th2 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3 | pub | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 1 | 1 |
| 4 | cs | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 5 | prn1 | 4 | 1 | 5 | 2 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 0 |
| 6 | prn2 | 0 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7 | prn3 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8 | prn4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 |
| 9 | prn5 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | ? | 0 | 1 | 1 | - | - | 1 | - |
| 10 | prn6 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | ? | 0 | 0 | 0 | - | - | 0 | - |
| 11 | prn7 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 1 | 2 | 2 |
| 12 | prn8 | 2 | 1 | 1 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| 13 | prn9 | 0 | 0 | 3 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 2 | 1 | 1 | 3 | 1 | 3 | 3 | 3 | 1 | 0 | 0 |
| 14 | trpl1 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 0 |
| 15 | trpl2 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | ? | 0 | 2 | 2 | 1 | 1 | 1 | 1 |
| 16 | prst1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 |
| 17 | prst2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 |
| 18 | prst3 | 0 | 1 | 0 | 2 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 |
| 19 | prst4 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 1 |
| 20 | prst5 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 0 |
| 21 | prcx1 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 22 | prcx2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | ? | 1 | 0 | 0 | 0 | 1 | 1 | 0 |
| 23 | prcx3 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | - | 1 | ? | - | 1 | 0 | 1 | - | - | 1 |
| 24 | prcx4 | - | 1 | 0 | 0 | 1 | - | - | - | - | - | 1 | 0 | - | - | 1 | - | - | - | 1 | 1 | 1 |
| 25 | prcx5 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 0 | 0 | 0 |
| 26 | prfc1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | ? | ? | 0 | 0 | 0 | 0 | 1 | 1 |
| 27 | mspub | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 2 | 0 | 0 | 1 | 1 |
| 28 | msn1 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 0 |
| 29 | msn2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 2 | 2 | 0 | 0 | 1 | 0 |
| 30 | msn3 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 3 | 1 | 1 | 2 | 2 | 1 | 1 | 2 | 1 |
| 31 | msn4 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0/1 | 1 | 2 | 4 | 0 | 3 | 3 | 3 | 5 | 0 | 0 | 3 | 0 |
| 32 | msn5 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 3 | 1 | 3 | 3 | 2 | 2 | 3 | 3 |
| 33 | msn6 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 |
| 34 | el1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 0 |
| 35 | el2 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 0 | 0 | 0 | 0 |
| 36 | el3 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 37 | el4 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | ? | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 38 | ep1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 39 | ep2 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | - | - | - | - | - | - | - | - | - | - |
| 40 | ep3 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | - | - | - | - | - | - | - | - | - | - |
| 41 | ep4 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | - | - | - | - | - | - | - | - | - | - |

| | code | <i>Helophorus</i> | <i>Eumetopus</i> | <i>Hydrochus</i> | <i>Georissus</i> | <i>Spercheus</i> | <i>Berosus</i> | <i>Anacaena</i> | <i>Laccobius</i> | <i>Pelthydrus</i> | <i>Hydrobius</i> | <i>Cercyon</i> | <i>Margarinotus</i> | <i>Ontophilus</i> | <i>Syntelia</i> | <i>Sphaerites</i> | <i>Lucanus</i> | <i>Amphimallon</i> | <i>Hydraena</i> | <i>Ochthebius</i> | <i>Nicrophorus</i> | <i>Catops</i> |
|----|--------|-------------------|------------------|------------------|------------------|------------------|----------------|-----------------|------------------|-------------------|------------------|----------------|---------------------|-------------------|-----------------|-------------------|----------------|--------------------|-----------------|-------------------|--------------------|---------------|
| 42 | msth1 | 0 | 2 | 0 | 1 | 3 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 4 | ? | 4 | 4 | 4 | 4 | 4 | 4 | 3 |
| 43 | msep2 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 44 | msep3 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 |
| 45 | msplst | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 46 | msv1 | 0 | 0 | 2 | 2 | 1 | 1 | 1 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| 47 | msv2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 48 | msv3 | 1 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 49 | msv4 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50 | msv5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 2 | 2 | 2 | 0 | 0 | 1 | 1 | 0 | 0 |
| 51 | msaes1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 52 | msaes2 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 53 | mstr | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 |
| 54 | mscx1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 |
| 55 | mscx3 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 56 | msfc1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | ? | 0 | 0 | 0 | 1 | 1 | 0 | 0 |
| 57 | msfc2 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | ? | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 58 | msfc3 | 0 | 0 | 0 | 1 | 0 | 1 | 2 | 2 | 0 | 0 | 2 | 0 | 0 | ? | 0 | 2 | 0 | 2 | 0 | 0 | 2 |
| 59 | msfc4 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | ? | 0 | 0 | 1 | 0 | 1 | 0 | 0 |
| 60 | msfc5 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | ? | 0 | 1 | 1 | 1 | 1 | 0 | 0 |
| 61 | msfc6 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | ? | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| 62 | msfc7 | 3 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 1 | 2 | 0 | 0 | 2 | ? | 0 | 2 | 0 | 0 | 0 | 4 | 0 |
| 63 | mtn1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 |
| 64 | mtn2 | 0 | 0 | 1 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 |
| 65 | mtn3 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | ? | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| 66 | mtn4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | ? | 0 | 0 | 2 | 0 | 0 | 0 | 0 |
| 67 | mtn5 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | ? | 1 | 0 | 3 | 1 | 1 | 0 | 0 |
| 68 | mtn6 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 0 |
| 69 | mtn7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 |
| 70 | mtn 8 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | ? | 0 | 2 | 2 | 2 | 2 | 0 | 0 |
| 71 | mtn 9 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | ? | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 72 | mtn10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| 73 | mtn11 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 0 |
| 74 | mtn12 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 |
| 75 | mtn13 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | ? | 1 | 0 | 0 | 1 | 1 | 0 | 0 |
| 78 | mtn14 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | ? | 0 | 1 | 1 | 0 | 0 | 0 | 0 |
| 77 | mtv1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 0 | 0 | 3 | 3 | 0 | 0 | 0 | 0 |
| 78 | mtv2 | 0 | 0 | 0 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1 |
| 79 | mtkes | 0 | 1 | 2 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 0 |
| 80 | mtcx1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 81 | mtcx2 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 |
| 82 | mtcx3 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| 83 | mtcx4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 |
| 84 | mtfc1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | ? | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 85 | mtfc2 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 3 | ? | 1 | 4 | 0 | 3 | 0 | 4 | 4 |
| 86 | mtfc3 | 0 | 0 | 0 | - | 1 | 1 | 1 | 0 | 0 | 0 | 0 | - | - | ? | 0 | 0 | 0 | 0 | 0 | 3 | 3 |
| 87 | mtfc4 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 2 | 0 | 0 | ? | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| 88 | mtfc5 | 1 | 0 | 0 | - | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | ? | ? | 1 | 0 | 0 | 1 | 0 | 1 | 1 |
| 89 | mtfc6 | 0 | 1 | 2 | - | 0 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | ? | 0 | 1 | 2 | 1 | 2 | 0 | 2 |
| 90 | fem1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 1 |
| 91 | fem2 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 92 | fem3 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 93 | fem4 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 94 | tib1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 95 | tib2 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 96 | tib3 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | ? | 1 | 3 | 0 | 0 | 0 | 2 | 2 |
| 97 | tib4 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 |
| 98 | tib5 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| 99 | trs1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | ? | 1 | 4 | 0 | 2 | 0 | 3 | 3 |

| | code | <i>Helophorus</i> | <i>Eumetopus</i> | <i>Hydrochus</i> | <i>Georissus</i> | <i>Spercheus</i> | <i>Berosus</i> | <i>Anacaena</i> | <i>Laccobius</i> | <i>Pelthydrus</i> | <i>Hydrobius</i> | <i>Cercyon</i> | <i>Margarinotus</i> | <i>Ontophilus</i> | <i>Syntelia</i> | <i>Sphaerites</i> | <i>Lucanus</i> | <i>Amphimallon</i> | <i>Hydraena</i> | <i>Ochthebius</i> | <i>Nicrophorus</i> | <i>Catops</i> |
|-----|----------|-------------------|------------------|------------------|------------------|------------------|----------------|-----------------|------------------|-------------------|------------------|----------------|---------------------|-------------------|-----------------|-------------------|----------------|--------------------|-----------------|-------------------|--------------------|---------------|
| 100 | trs2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 2 | 1 | 0 | 0 | 2 | 2 | 1 | 1 |
| 101 | trs3 | 0 | 0 | 1 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | ? | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| 102 | M. 1/2 | 0 | ? | 0 | ? | 0 | 0 | ? | ? | ? | ? | ? | 1 | 1 | ? | 1 | ? | 0 | ? | 0 | 0 | ? |
| 103 | M. 45 | 1 | ? | ? | ? | 1 | 1 | ? | ? | ? | ? | ? | 1 | ? | ? | ? | 1 | 0 | ? | 1 | 1 | ? |
| 104 | 53/54 | 0 | ? | 0 | ? | 0 | 0 | ? | ? | ? | ? | ? | 1 | ? | ? | ? | 0 | 0 | ? | 0 | 0 | ? |
| 105 | M. 55 | 0 | ? | ? | ? | 0 | 0 | ? | ? | ? | ? | ? | 0 | ? | ? | ? | 0 | 1 | ? | 1 | 0 | ? |
| 106 | M. 64 | 1 | ? | ? | ? | 1 | 1 | ? | ? | ? | ? | ? | 0 | ? | ? | ? | 1 | 1 | ? | 1 | 1 | ? |
| 107 | M. 70 | 0 | ? | ? | ? | 0 | 0 | ? | ? | ? | ? | ? | ? | ? | ? | ? | 1 | 1 | ? | 0 | 0 | ? |
| 108 | M. 72 | 0 | ? | ? | ? | ? | 0 | ? | ? | ? | ? | ? | 0 | ? | ? | ? | 0 | 1 | ? | 1 | 0 | ? |
| 109 | M. 101 | 0 | ? | 0 | ? | ? | 0 | ? | ? | ? | ? | ? | 1 | ? | ? | ? | 0 | 0 | ? | 0 | 0 | ? |
| 110 | M. 104 | 0 | ? | 1 | ? | 2 | 0 | ? | ? | ? | ? | ? | 1 | ? | ? | ? | 0 | 1 | ? | ? | 0 | ? |
| 111 | M. 111 | 0 | ? | 0 | ? | 1 | 1 | ? | ? | ? | ? | ? | 1 | ? | ? | ? | 1 | 1 | ? | 0 | 1 | ? |
| 112 | hor | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 113 | groove | 1 | 1 | 1 | 1 | 0 | 1 | 1? | 1 | 1? | 1 | 0? | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 114 | por | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 |
| 115 | bulge | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 |
| 116 | ptemp | 1 | 2 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 |
| 117 | excis | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 118 | clyp | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 2 | 1 | 1 | 1 | 0 |
| 119 | ant1 | 1/2 | 1 | 3 | 1 | 3 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 |
| 120 | ant2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 1 | 1 | 2 | 0 |
| 121 | ant3 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 2 | 2 | 3 | 0 |
| 122 | ant4 | 1 | 1 | 1 | ? | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 |
| 123 | galea | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | ? | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| 124 | prem | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 125 | plate | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 |
| 126 | bas | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 |
| 127 | styli | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | ? | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 128 | lhead | 1 | 1 | 1 | 1 | 0 | 1 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 3 | 3 | 0 | 0 | 0 | 0 |
| 129 | ecd | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 130 | labr | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 131 | clyp | 1 | 1 | 0/1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 132 | spines | 0 | 1 | 0 | 1 | - | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | - | - | - | - | - | - |
| 133 | ptg | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 134 | mxgr | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 |
| 135 | sap | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 136 | prosth | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 0 |
| 137 | mola | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 |
| 138 | hinge | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 139 | cardo | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 |
| 140 | stipes | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 141 | galea | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 142 | palp | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 |
| 143 | subm | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 144 | mentum | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 0 |
| 145 | 17/18 | 1 | ? | 1 | ? | 0 | 1 | 1 | 1 | ? | 1 | 1 | 1 | 1 | ? | ? | 0 | 0 | 0 | 0 | 0 | 0 |
| 146 | scler | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 |
| 147 | T VIII | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 148 | Sp I-VII | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 0 | 0 | 0 | 0 |
| 149 | Sp VIII | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150 | urog | 3 | 2 | 3 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 0 | 0 | 1 | 1 | 3 | 3 |
| 151 | case | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 |
| 152 | depos | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | ? | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 |
| 153 | bag | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 154 | habad | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 |
| 155 | feedad | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 5 | 5 | 5 | 1 | 1 | 3 | 0 |
| 156 | hablarv | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| 157 | feedlarv | 2 | 2 | 2 | 2 | 4 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 5 | 5 | 1 | 1 | 3 | 0 |