

Evolution of the Carabiner

Make a cladogram of the following “taxa”. Place the synapomorphies at the nodes and the autapomorphies on the branches leading to the proper taxa. Start with a character matrix, and be sure to identify the symplesiomorphies (those primitive, irrelevant features) before you make your cladogram. The outgroup need not appear on your final cladogram.

Characters

- | | |
|----------------------------|------------------------------|
| 1. Aluminum (bronze) | 6. Fin-shaped (wider at top) |
| 2. Titanium (blue) | 7. Solid gate |
| 3. Locking gate (threaded) | 8. Hollow gate |
| 4. Oval | 9. Notch |
| 5. D-shaped | 10. No notch |

Outgroup

A

B

C

D

