



Zoología (BIO222)

Instrucciones para el ejercicio

“Taxonomic Classification and Phylogenetic Trees”

<http://www.mhhe.com/biosci/pae/zoology/cladogram/index.mhtml>

Estudiantes de Zoología: Este ejercicio será entregado ****impreso**** como un deber para la clase teórica y como adjunto al informe de Laboratorio de Zoología (BIO222L) respectivo. Deben desarrollar e imprimir todos los siete ejercicios (3 de especímenes y 4 de filogenia).


Para desarrollar el “Exercise 2” de la sección “Preview of Concepts”, repitan los siguientes pasos para cada espécimen:

(a) Debe ser realizado en línea para cada espécimen. La siguiente pantalla aparecerá:

Key to the Principal Orders of Insects

Instructions: After reading the description below, use the dichotomous key to determine the identity of the organism. The green arrow indicates which pair to make a selection from. When you click the radio button next to the choice, you will be taken to the next choice. When you reach a choice that identifies the organism, click submit to check your answers. If you have any choices wrong, the arrow will point to the place where you made the first wrong selection.

Specimen 1: A large insect with two pairs of wide, clear, functional wings. Body length is about 1.5 cm with a long slender abdomen possessing very short filaments. Forewings are about the same length

| | | |
|----|---|--|
| 1. |  | <input type="radio"/> With functional wings..... 2 <input type="radio"/> Without functional wings, or with forewings thickened and concealing membranous hindwings.....15 |
| 2. | | <input type="radio"/> Wings covered with minute scales; mouthparts usually a coiled tube (butterflies, moths)... The specimen is Lepidoptera (select the submit button to confirm your selection) <input type="radio"/> Wings usually clear, not covered with scales; mouthparts not a coiled tube.....3 |
| 3. | | <input type="radio"/> With one pair of wings (true flies)..... The specimen is Diptera (select the submit button to confirm your selection) <input type="radio"/> With two pairs of wings.....4 |
| 4. | | <input type="radio"/> Wings long, narrow, fringed with long hairs, body length 5 mm or less (thrips)..... The specimen is Thysanoptera (select the submit button to confirm your selection) <input type="radio"/> Wings not narrow and fringed, body usually longer than 5 mm.....5 |
| 5. | | <input type="radio"/> Abdomen with two or three threadlike "tails"; hindwings small (mayflies).... The specimen is Ephemeroptera (select the submit button to confirm your selection) <input type="radio"/> Abdomen with only short filaments or none; hindwings larger.....6 |
| 6. | | <input type="radio"/> Forewings clearly longer and with greater area than hindwings.....7 <input type="radio"/> Forewings not longer, or slightly longer than hindwings, and with same or less area than hindwings.....9 |

Lean la descripción del espécimen y vayan seleccionando la opción más adecuada. Cuando hayan terminado hagan click en “Submit”.

A continuación aparecerá una pantalla similar a:

Key to the Principal Orders of Insects

Instructions: After reading the description below, use the dichotomous key to determine the identity of the organism. The green arrow indicates which pair to make a selection from. When you click the radio button next to the choice, you will be taken to the next choice. When you reach a choice that identifies the organism, click submit to check your answers. If you have any choices wrong, the arrow will point to the place where you made the first wrong selection.

Specimen 1: A large insect with two pairs of wide, clear, functional wings. Body length is about 1.5 cm with a long slender abdomen possessing very short filaments. Forewings are about the same length

| | | | |
|----|-------------------------------------|---|--|
| 1. | <input checked="" type="checkbox"/> | <input checked="" type="radio"/> With functional wings.....2 | <input type="radio"/> Without functional wings, or with forewings thickened and concealing membranous hindwings.....15 |
| 2. | <input checked="" type="checkbox"/> | <input type="radio"/> Wings covered with minute scales; mouthparts usually a coiled tube (butterflies, moths).... The specimen is Lepidoptera (select the submit button to confirm your selection) | <input checked="" type="radio"/> Wings usually clear, not covered with scales; mouthparts not a coiled tube.....3 |
| 3. | <input checked="" type="checkbox"/> | <input type="radio"/> With one pair of wings (true flies)..... The specimen is Diptera (select the submit button to confirm your selection) | <input checked="" type="radio"/> With two pairs of wings.....4 |
| 4. | <input checked="" type="checkbox"/> | <input type="radio"/> Wings long, narrow, fringed with long hairs, body length 5 mm or less (thrips)..... The specimen is Thysanoptera (select the submit button to confirm your selection) | <input checked="" type="radio"/> Wings not narrow and fringed, body usually longer than 5 mm.....5 |

1 is correct.
2 is correct.
3 is correct.
4 is correct.
5 is correct.
6 is correct.
9 is correct.
10 is correct.

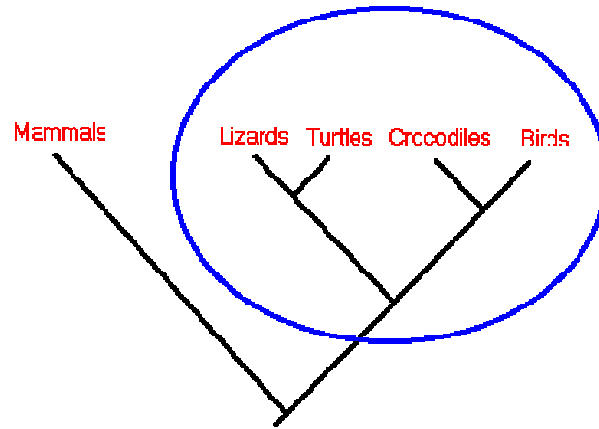
Para imprimir esta sección hagan click en “File” o “Archivo” y seleccionan la opción “Print Preview” o “Vista Preview”:

The screenshot shows a web browser window with the address bar displaying <http://www.mhhe.com/biosci/pae/zoology/cladogram/specimen01.html>. The 'File' menu is open, and 'Print Preview...' is highlighted. The background content is the 'Key to the Principal Orders of Insects' page, showing the instructions and the beginning of the dichotomous key.

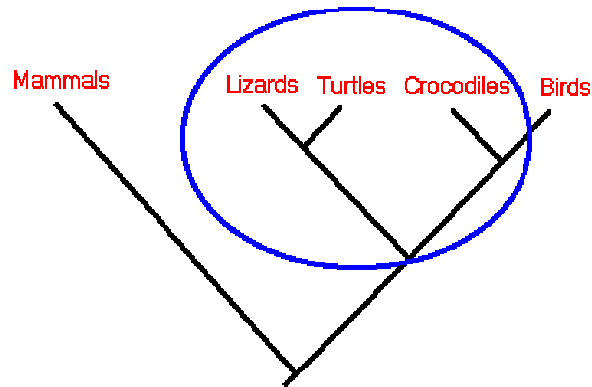
En la pantalla seleccionen “All frames individually” o “Todas los cuadros”:

The screenshot shows a 'Print Preview' window. The 'Print' button is visible. A dropdown menu is open, showing three options: 'As laid out on screen', 'Only the selected frame', and 'All frames individually'. The 'All frames individually' option is selected. The background content is the same 'Key to the Principal Orders of Insects' page as in the previous screenshot.

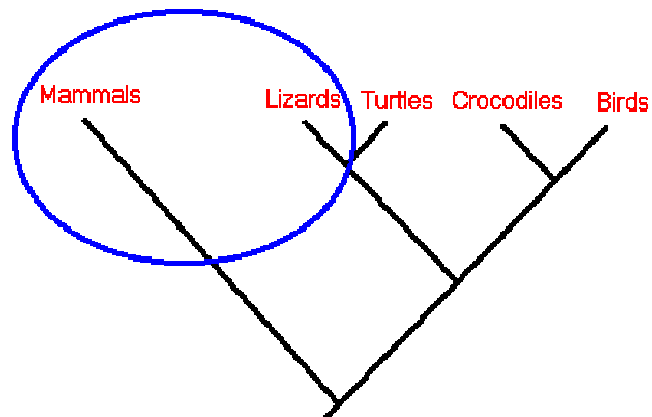
Figuras de la sección: Systematic Approaches to Phylogeny



Monophyletic



Paraphyletic



Polyphyletic