

Dichotomous Key to Salamanders

Introduction:

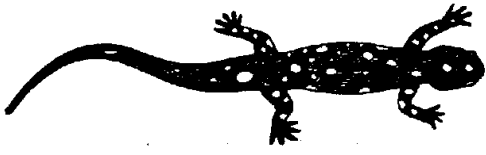
A dichotomous key is constructed of a series of couplets, each consisting of two separate statements. For example:

By reading the two statements of each couplet, you progress through the key from typically broad characteristics to narrower characteristics until only a single choice remains. As long as the correct statement of each couplet is chosen, and the unknown organism is included in the key, a confident identification is usually achieved. Many types of organisms can be identified using a dichotomous key. In this lab, you will identify salamanders.

Procedure:

1. Use the dichotomous key provided to identify the salamanders in Figure 1.
2. Write the pathway you took to get to the name of the salamander next to the drawing.
3. Write the correct name for the salamander on the line below each picture.

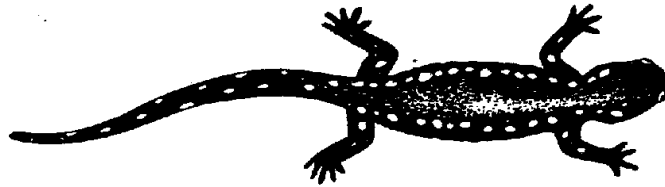
Figure 1 - Types of salamanders



1 _____



2 _____



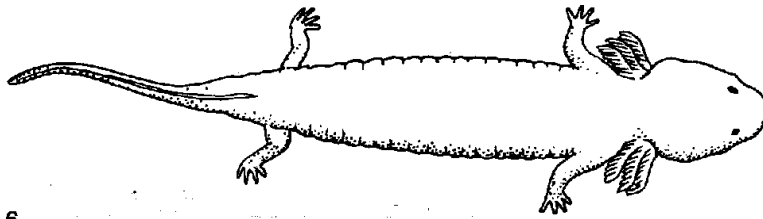
3 _____



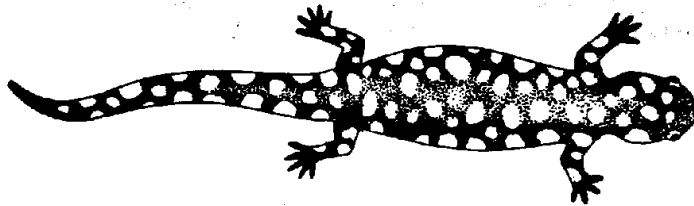
4 _____



5 _____



6 _____



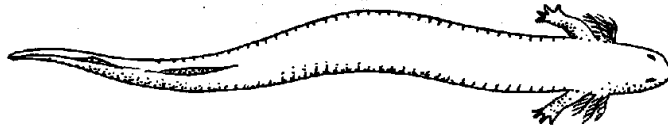
7 _____



8 _____



9 _____



10 _____



11 _____

Key to the Salamanders:

1	a	Hind limbs absent	<i>Siren</i>
	b	Hind limbs present	Go to 2
2	a	External gills present in adults	<i>Mud puppy</i>
	b	External gills absent in adults	Go to 3
3	a	Large size (over 7 cm long)	Go to 4
	b	Small size (under 7 cm long)	Go to 5
4	a	Body background black, large white spots irregular in shape and size completely covering body & tail	<i>Tiger salamander</i>
	b	Body background black, small, round, white spots in a row along each side from eye to tip of tail	<i>Spotted Salamander</i>
5	a	Body background black with white spots	Go to 6
	b	Body background light color with dark spots and or lines on body	Go to 7
6	a	Small white spots on a black background in a row along each side from head to tip of tail	<i>Jefferson salamander</i>
	b	Small white spots scattered throughout a black background from head to tip of tail	<i>Slimy salamander</i>
7	a	Large irregular black spots on a light background extending from head to tip of tail	<i>Marbled salamander</i>
	b	No large irregular black spots on a light background	Go to 8
8	a	Round spots scattered along back and sides of body, tail flattened like a tadpole	<i>Newt</i>
	b	Without round spots and tail not flattened like a tadpole	Go to 9
9	a	Two dark lines bordering a broad, light mid-dorsal stripe with a narrow median dark line extending from the head onto the tail	<i>Two-lined salamander</i>
	b	Without two dark lines running the length of the body	Go to 10
10	a	A light stripe running the length of the body and bordered by dark pigment extending downward on the sides	<i>Red-backed salamander</i>
	b	A light stripe extending the length of the body, a marked constriction at the base of the tail	<i>Four-toed salamander</i>