Salamander Elicitation Survey.

Purpose:

Description:

**Question 1.** **Biographical Information**

Name:

Email:

Affiliation:

Graduation Year (Ph. D.):

Years working on salamander ecology:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Level of knowledge | 1 | 2 | 3 | 4 | 5 |
| General Salamander Ecology |  |  |  |  |  |
| Broad land use effects on salamanders |  |  |  |  |  |
| Riparian effects on salamanders |  |  |  |  |  |
| Stream temperature effects on salamanders |  |  |  |  |  |
| Streamflow effects on salamanders |  |  |  |  |  |
| Fish effects on salamanders |  |  |  |  |  |
| Salamander effects on fish |  |  |  |  |  |
| Salamander occupancy modeling |  |  |  |  |  |
| Salamander abundance modeling |  |  |  |  |  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Number of peer-reviewed publications | 1 | 2 | 3 | 4 | 5 |
| General Salamander Ecology |  |  |  |  |  |
| Broad land use effects on salamanders |  |  |  |  |  |
| Riparian effects on salamanders |  |  |  |  |  |
| Stream temperature effects on salamanders |  |  |  |  |  |
| Streamflow effects on salamanders |  |  |  |  |  |
| Fish effects on salamanders |  |  |  |  |  |
| Salamander effects on fish |  |  |  |  |  |
| Salamander occupancy modeling |  |  |  |  |  |
| Salamander abundance modeling |  |  |  |  |  |

**Question 2. Overall average probability of occupancy**

In your opinion, how many stream reaches (out of 100 reaches randomly selected across the species range) would you expect a salamander population to exist? All reaches have the same drainage area of 3 km2 (approximately 2.5 m wetted width; X length), mean summer stream temperature of 16o C, average annual flow regimes, 100% forest cover within a 30-m riparian zone and 50% forest cover within the upland (non-riparian), and contain no predatory fish.

DEFU \_\_\_\_\_\_\_ [value between 0 and 100]

GYPO \_\_\_\_\_\_\_ [value between 0 and 100]

EUBI \_\_\_\_\_\_\_ [value between 0 and 100]

**Question 3.** **Stream size**

In your opinion, how many stream reaches (out of 100 reaches randomly selected across the species range; each row) would you expect a salamander population of each species to exist? All reaches have a mean summer stream temperature of 16o C, average annual flow regimes, 100% forest cover within a 30-m riparian zone and 50% forest cover within the upland (non-riparian), and contain no predatory fish. Note the change the change in drainage area and stream width (units increase).

Do we need to know the number of stream km in the upstream drainage? Else we’re asking for the site-level (bottom reach of the catchment) and not throughout the catchment – is this what we want?

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Number of possible stream reaches | Drainage area (km2) | Stream width (m) | DEFU | GYPO | EUBI |
| 100 | 0.75 | 0.5 |  |  |  |
| 100 | 1.00 | 1.0 |  |  |  |
| 100 | 2.00 | 2.0 |  |  |  |
| 100 | 3.00 | 2.5 |  |  |  |
| 100 | 4.00 | 3.0 |  |  |  |
| 100 | 5.00 | 3.5 |  |  |  |
| 100 | 10.00 | 4.0 |  |  |  |
| 100 | 15.00 | 5.0 |  |  |  |
| 100 | 40.00 | 8.0 |  |  |  |
| 100 | 200.00 | 20.0 |  |  |  |

**Question 4.** **Stream temperature**

In your opinion, how many stream reaches (out of 100 reaches randomly selected across the species range; each row) would you expect a salamander population of each species to exist? All reaches have the same drainage area of 3 km2 (approximately 2.5 m wetted width; X length), average annual flow regimes, 100% forest cover within a 30-m riparian zone and 50% forest cover within the upland (non-riparian), and contain no predatory fish. Note the change the stream temperature is 1 unit (2 degrees).

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Number of possible stream reaches | Mean Summer Stream Temperature (C) | DEFU | GYPO | EUBI |
| 100 | 10 |  |  |  |
| 100 | 12 |  |  |  |
| 100 | 14 |  |  |  |
| 100 | 16 |  |  |  |
| 100 | 18 |  |  |  |
| 100 | 20 |  |  |  |
| 100 | 22 |  |  |  |
| 100 | 24 |  |  |  |
| 100 | 26 |  |  |  |
| 100 | 28 |  |  |  |
| 100 | 30 |  |  |  |
| 100 | 34 |  |  |  |
| 100 | 36 |  |  |  |
| 100 | 38 |  |  |  |

**Question 5.** **Streamflow – need to talk to dan about drainage x precip covariate**

**Question 6.** **Riparian and upland forest cover**

In your opinion, how many stream reaches (out of 100 reaches randomly selected across the

species range; each row) would you expect a salamander population of each species to exist? All reaches have the same drainage area of 3 km2 (approximately 2.5 m wetted width; X length), average annual flow regimes, and vary in the amount of riparian forest within the 30m buffer and the amount of forest in the uplands, and contain no predatory fish.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| DEFU |  | Percent Upland (non-riparian) Forest Cover | | |
|  |  | 0 | 50 | 100 |
| Percent Riparian (30-m buffer) Forest Cover | 0 |  |  |  |
| 50 |  |  |  |
| 100 |  |  |  |
| GYPO |  | Percent Upland (non-riparian) Forest Cover | | |
|  |  | 0 | 50 | 100 |
| Percent Riparian (30-m buffer) Forest Cover | 0 |  |  |  |
| 50 |  |  |  |
| 100 |  |  |  |
| EUBI |  | Percent Upland (non-riparian) Forest Cover | | |
|  |  | 0 | 50 | 100 |
| Percent Riparian (30-m buffer) Forest Cover | 0 |  |  |  |
| 50 |  |  |  |
| 100 |  |  |  |

**Question 7.** **Fish presence**

In your opinion, how many stream reaches (out of 100 reaches randomly selected across the species range) would you expect a salamander population to exist? All reaches have the same drainage area of 3 km2 (approximately 2.5 m wetted width; X length), mean summer stream temperature of 16o C, average annual flow regimes, 100% forest cover within a 30-m riparian zone and 50% forest cover within the upland (non-riparian), and contains a population of brook trout (species name).

No Fish (copy from Q2)

DEFU \_\_\_\_\_\_\_ [value between 0 and 100]

GYPO \_\_\_\_\_\_\_ [value between 0 and 100]

EUBI \_\_\_\_\_\_\_ [value between 0 and 100]

All reaches have a brook trout population

DEFU \_\_\_\_\_\_\_ [value between 0 and 100]

GYPO \_\_\_\_\_\_\_ [value between 0 and 100]

EUBI \_\_\_\_\_\_\_ [value between 0 and 100]