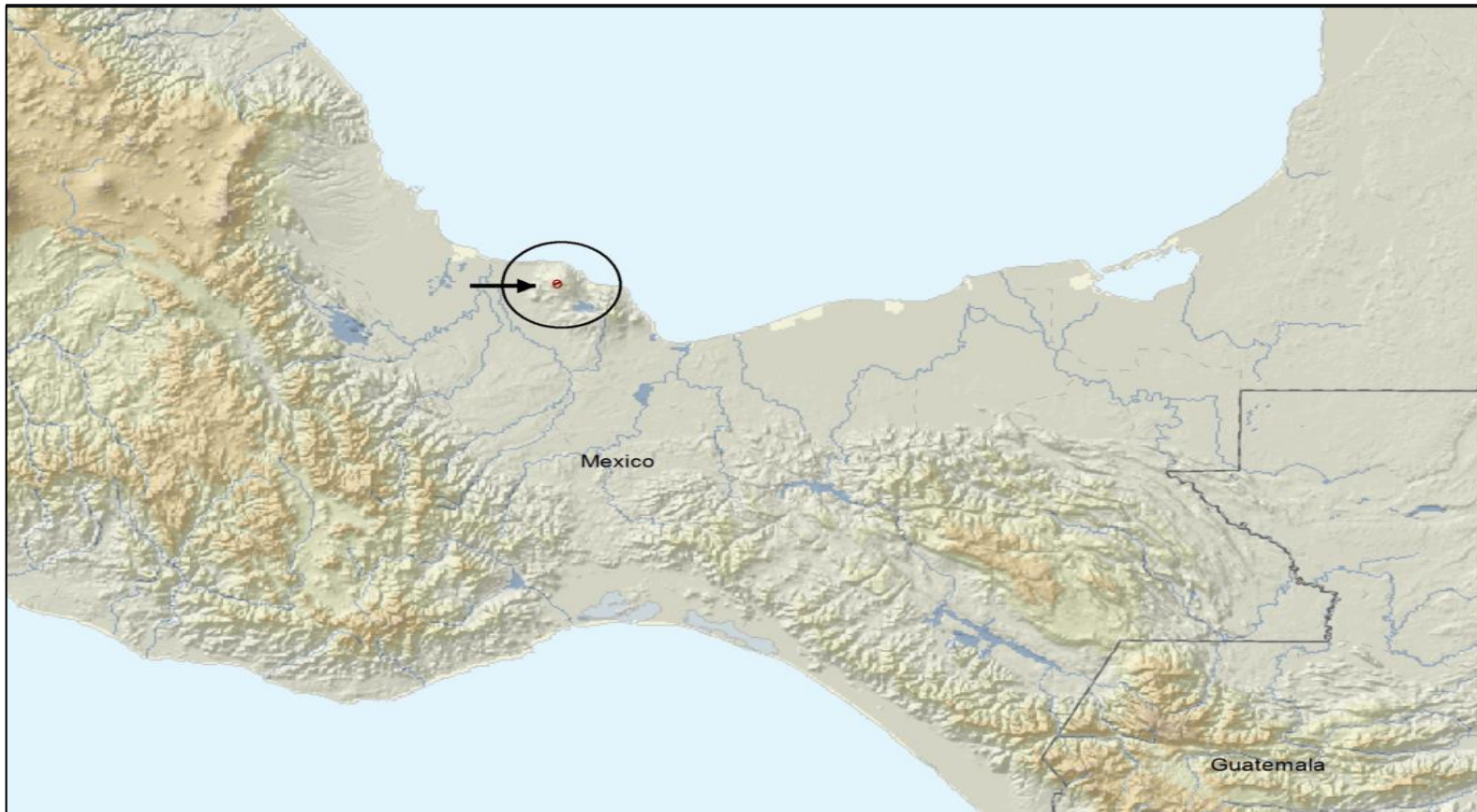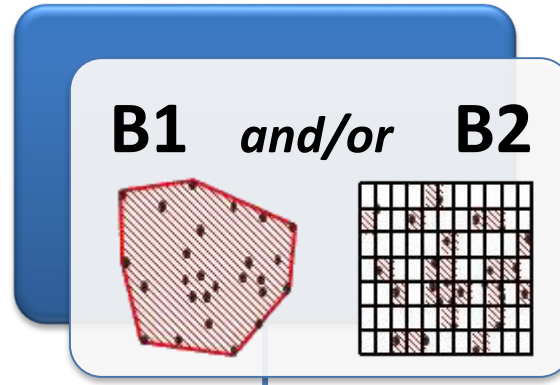# Red List Criteria: Criterion B

Restricted geographic range + fragmentation/ few locations, continuing decline or extreme fluctuations

First must meet the thresholds for B1 **and/or** B2

B1 *and/or* **B2**

Then also must meet the thresholds for **at least two** of subcriteria a, b or c.

| B. Geographic range in the form of either B1 (extent of occurrence) AND/OR B2 (area of occupancy)			
	Critically Endangered	**Endangered**	**Vulnerable**
B1. Extent of occurrence (EOO)	< 100 km²	< 5,000 km²	< 20,000 km²
B2. Area of occupancy (AOO)	< 10 km²	< 500 km²	< 2,000 km²

AND at least 2 of the following 3 conditions:

(a)	Severely fragmented **OR** Number of locations	= 1	≤ 5	≤ 10

(b) Continuing decline observed, estimated, inferred or projected in any of: **(i)** extent of occurrence; **(ii)** area of occupancy; **(iii)** area, extent and/or quality of habitat; **(iv)** number of locations or subpopulations; **(v)** number of mature individuals.

(c) Extreme fluctuations in any of: **(i)** extent of occurrence; **(ii)** area of occupancy; **(iii)** number of locations or subpopulations; **(iv)** number of mature individuals.

Example: a cone snail

- Known from only 6 sites along a 25 km stretch of coastline with a city occupying part of the area.

- EOO = 150 km²

- AOO = 28 km²

- Dispersal abilities between areas is not well known; there may be movement between groups. So severe fragmentation unknown.

- Main threats recorded are:

  ○ Collection for shell trade.

  ○ Habitat loss and decline from pollution and urban expansion.

- Locations = 5

- Continuing decline in habitat quality & population size

- No known extreme fluctuations
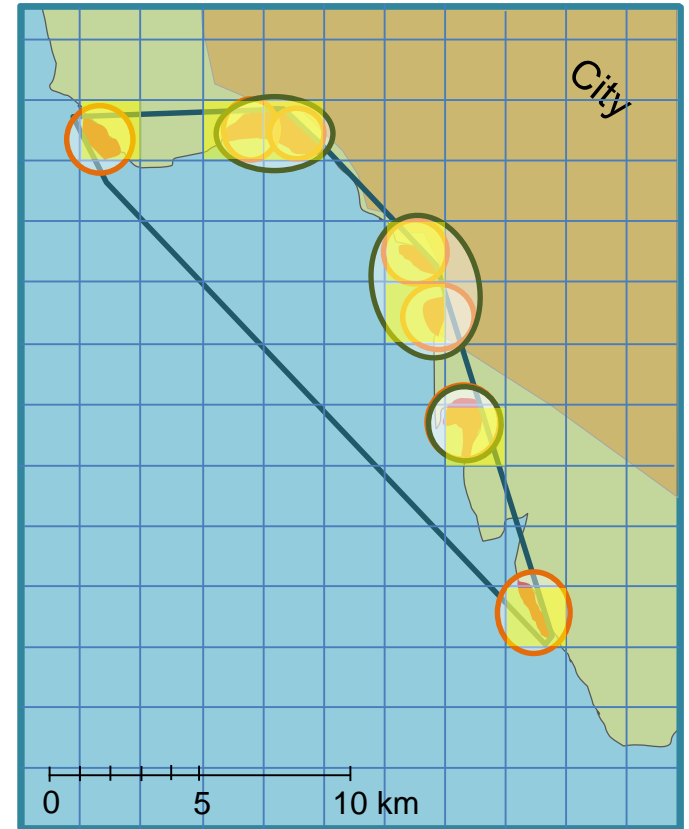
Example: a cone snail   EN B1ab(iii,v)+2ab(iii,v)

- Known from only 6 sites along a 25 km stretch of coastline with a city occupying part of the area.

- EOO = 150 km²   **EN B1**

- AOO = 28 km²   **EN B2**

- Dispersal abilities between areas is not well known; there may be movement between groups. So severe fragmentation unknown.

- Main threats recorded are:

  - Collection for shell trade.

  - Habitat loss and decline from pollution and urban expansion.

- Locations = 5   **EN B1a+2a**

- Continuing decline in habitat quality & population size   **EN B1b(iii,v)+2b(iii,v)**

- No known extreme fluctuations
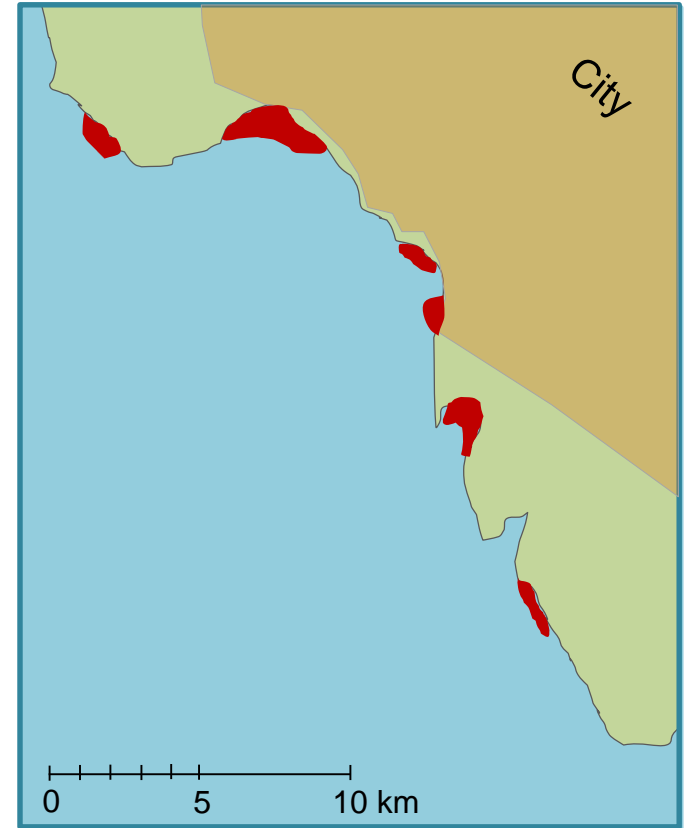
City

0   5   10 km

To qualify for a threatened category, the species must meet **ALL** the required thresholds and conditions for the category

- EOO = 50 km²
- AOO = 8 km²
- There is continuing decline
- No extreme fluctuation
- Not severely fragmented but occurs 3 locations

B. Geographic range in the form of either B1 (extent of occurrence) AND/OR B2 (area of occupancy)			
	Critically Endangered	**Endangered**	**Vulnerable**
B1. Extent of occurrence (EOO)	✓ < 100 km²	✓ < 5,000 km²	✓ < 20,000 km²
B2. Area of occupancy (AOO)	✓ < 10 km²	✓ < 500 km²	✓ < 2,000 km²
AND at least 2 of the following 3 conditions:			
(a) Severely fragmented OR Number of locations	✗ = 1	✓ ≤ 5	✓ ≤ 10
(b) Continuing decline observed, estimated, inferred or projected in any of: (i) extent of occurrence; (ii) area of occupancy; (iii) area, extent and/or quality of habitat; (iv) number of locations or subpopulations; (v) number of mature individuals.		✓	✓
(c) Extreme fluctuations in any of: (i) extent of occurrence; (ii) area of occupancy; (iii) number of locations or subpopulations; (iv) number of mature individuals.	✗	✗	✗

Endangered

To qualify for a threatened category, the species must meet **ALL** the required thresholds and conditions for the category

- EOO = 16,000 km²
- AOO = 4,200 km²
- There is continuing decline
- No extreme fluctuation
- Not severely fragmented but occurs 3 locations

B. Geographic range in the form of either B1 (extent of occurrence) AND/OR B2 (area of occupancy)			
	Critically Endangered	**Endangered**	**Vulnerable**
B1. Extent of occurrence (EOO)	✘ < 100 km²	✘ < 5,000 km²	✔ < 20,000 km²
B2. Area of occupancy (AOO)	✘ < 10 km²	✘ < 500 km²	✘ < 2,000 km²
AND at least 2 of the following 3 conditions:			
(a) Severely fragmented OR Number of locations	✘ = 1	✔ ≤ 5	✔ ≤ 10
(b) Continuing decline observed, estimated, inferred or projected in any of: (i) extent of occurrence; (ii) area of occupancy; (iii) area, extent and/or quality of habitat; (iv) number of locations or subpopulations; (v) number of mature individuals.		✔	✔
(c) Extreme fluctuations in any of: (i) extent of occurrence; (ii) area of occupancy; (iii) number of locations or subpopulations; (iv) number of mature individuals.	✘	✘	✘

Vulnerable

Near Threatened (NT) and Criterion B :

Close to qualifying for Vulnerable

- Extent of occurrence = 18,000 km² ➡ **VU B1**
- Area of occupancy is not known.
- The population is severely fragmented ➡ **VU B1a**
- Number of locations is not known (there may be many more than 10)
- No continuing decline
- No extreme fluctuations

Near Threatened
(meets VU B1a only)

Near Threatened (NT) and Criterion B :

Close to qualifying for Vulnerable

- Extent of occurrence = 32,000 km².
- Area of occupancy = 420 km². ➞ **EN B2**
- The area of occupancy is declining ➞ **EN B2b(ii)**
- It is not known if the population is severely fragmented
- Number of locations is not known (there may be many more than 10)
- No extreme fluctuations

Near Threatened

(meets EN B2b(ii) only)

Near Threatened (NT) and Criterion B :

Close to qualifying for Vulnerable

- Extent of occurrence = 30,000 km² (uncertain estimate – it may be lower than this). ➡ **Nearly meets VU B1**

- Area of occupancy = 3,000 km² (uncertain estimate – it may be lower than this). ➡ **Nearly meets VU B2**

- It is not known if the population is severely fragmented

- Number of locations = 10 ➡ **subcriterion a**

- The population is declining ➡ **subcriterion b(v)**

- No extreme fluctuations

Near Threatened

(nearly meets VU B1ab(v)+2ab(v))

Criterion B points to remember:
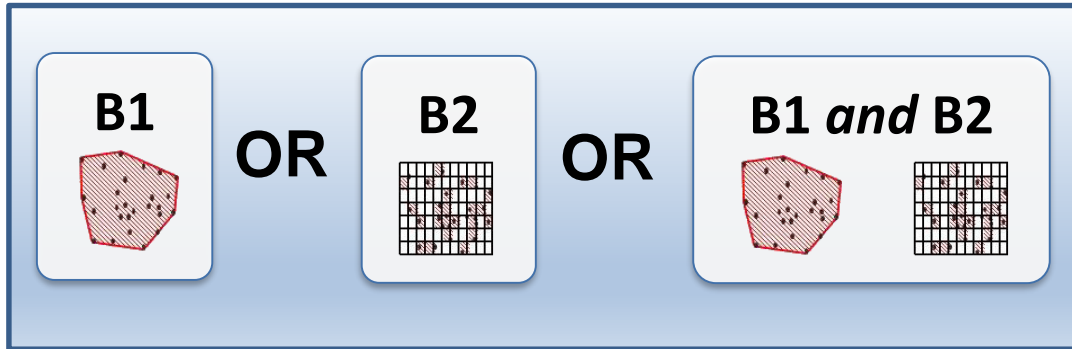
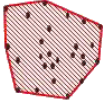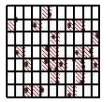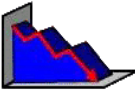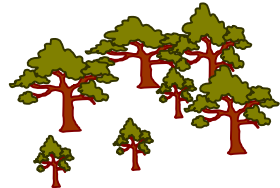**At least one** of the B1 or B2 thresholds must be met
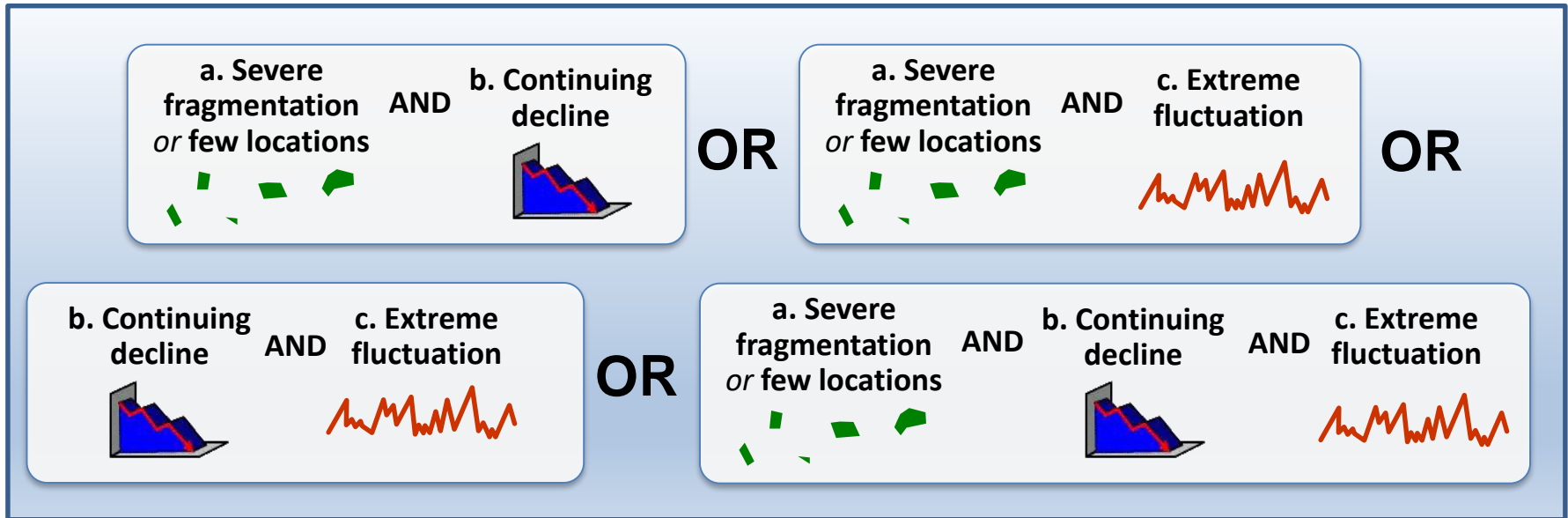
At least two of the subcriteria (a, b or c) must be met

Criterion B points to remember:

Subcriterion '*a*' can be based on **either** severe fragmentation **OR** small number of locations

Subcriterion a

Severe fragmentation **OR** **Few locations**
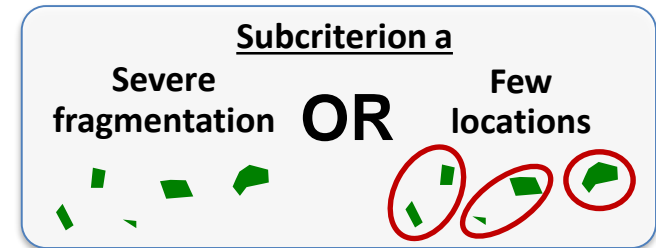
Remember the definitions of all the terms used in criterion B.

Extent of occurrence   **Area of occupancy**   **Severely fragmented**   *Threat* **Location**   **Continuing decline**   **Extreme fluctuation**   **Mature individual**   **Subpopulation**

Guidelines for Using the IUCN Red List Categories and Criteria

Criterion B points to remember:

Be careful with subcriterion b(iii): "continuing decline in area, extent and/or quality of habitat"

- Define "habitat" in the strict sense (i.e., area, characterized by its abiotic and biotic properties).

- Avoid generic descriptions for habitat (e.g., "forest").

- Document the location of declines in relation to the species' range.

Photo by Caroline Pollock, IUCN Red List Unit

Criterion B exercise: Case Study
(20 minutes)

1. Select one person in your group to be the reporter.

2. Reporters: use the flip chart to record the group's assessment. You will also present the group's discussion to the rest of the participants.

3. Read through the case study provided.

4. As a group, discuss the information that relates to **criterion B** and assess the species using only this criterion.

5. Make full use of the resources available to help you (including asking the facilitators for advice!)