BANK 4 — PRE-MAP FINAL (50)

1️⃣ Population size

Definition: Total number of individuals in a population.
Example: 500 deer in a forest.
🧠 *Number above animals.*
Cue: How many.

2️⃣ Population density

Definition: Number of individuals per unit area.
Example: 20 deer per square mile.
🧠 *Animals packed in a box.*
Cue: How crowded.

3️⃣ Population distribution

Definition: Spatial arrangement of individuals.
Example: Clumped, uniform, or random patterns.
🧠 *Dots spaced differently.*
Cue: Pattern in space.

4️⃣ Clumped distribution

Definition: Individuals grouped together.
Example: Fish schooling.
🧠 *Clusters of dots.*
Cue: Groups.

5️⃣ Uniform distribution

Definition: Evenly spaced individuals.
Example: Nesting birds with territories.
🧠 *Even dots.*
Cue: Even spacing.

6️⃣ Random distribution

Definition: Individuals spaced unpredictably.
Example: Plants spread by wind.
🧠 *Scattered dots.*
Cue: No pattern.

7️⃣ Population growth

Definition: Change in population size over time.
Example: More births than deaths.
🧠 *Arrow going up.*
Cue: Size change.

8️⃣ Exponential growth

Definition: Rapid population increase with unlimited resources.
Example: Bacteria multiplying.
🧠 *J-shaped curve.*
Cue: Fast increase.

9️⃣ Logistic growth

Definition: Growth that slows near carrying capacity.
Example: Population leveling off.
🧠 *S-shaped curve.*
Cue: Levels off.

🔟 Birth rate

Definition: Number of births in a population.
Example: New offspring born per year.
🧠 *Baby animal icon.*
Cue: Births.

1️⃣1️⃣ Death rate

Definition: Number of deaths in a population.
Example: Individuals dying per year.
🧠 *Cross symbol.*
Cue: Deaths.

1️⃣2️⃣ Immigration

Definition: Movement of individuals into a population.
Example: Animals entering new habitat.
🧠 *Arrow pointing in.*
Cue: Coming in.

1️⃣3️⃣ Emigration

Definition: Movement of individuals out of a population.
Example: Animals leaving habitat.
🧠 *Arrow pointing out.*
Cue: Leaving.

1️⃣4️⃣ Limiting factors

Definition: Factors that restrict population growth.
Example: Food shortage.
🧠 *Stop sign.*
Cue: Limits growth.

1️⃣5️⃣ Density-dependent factors

Definition: Factors that increase with population density.
Example: Disease spreading faster in crowded populations.
🧠 *Crowded animals + illness.*
Cue: More crowded = stronger effect.

1️⃣6️⃣ Density-independent factors

Definition: Factors affecting populations regardless of density.
Example: Hurricanes or droughts.
🧠 *Storm icon.*
Cue: Affects all.

1️⃣7️⃣ Carrying capacity

Definition: Maximum population an environment can support.
Example: Habitat can only feed 300 deer.
🧠 *Limit line.*
Cue: Max support.

1️⃣8️⃣ Population regulation

Definition: Processes controlling population size.
Example: Predation and food availability.
🧠 *Balance scale.*
Cue: Control size.

1️⃣9️⃣ Age structure

Definition: Distribution of individuals among age classes.
Example: More young than old.
🧠 *Age pyramid.*
Cue: Age makeup.

2️⃣0️⃣ Sex ratio

Definition: Proportion of males to females.
Example: 1:1 male to female ratio.
🧠 *Male–female symbols.*
Cue: Male vs female.

2️⃣1️⃣ Survivorship

Definition: Probability of individuals surviving to certain ages.
Example: Survival curves.
🧠 *Curve lines.*
Cue: Survival chance.

2️⃣2️⃣ Life history

Definition: Pattern of growth, reproduction, and survival.
Example: Fast-reproducing species.
🧠 *Timeline of life stages.*
Cue: Life strategy.

2️⃣3️⃣ r-selected species

Definition: Species producing many offspring with little care.
Example: Insects.
🧠 *Many small offspring.*
Cue: Quantity over care.

2️⃣4️⃣ K-selected species

Definition: Species producing few offspring with high care.
Example: Elephants.
🧠 *Few large offspring.*
Cue: Quality over quantity.

2️⃣5️⃣ Recruitment

Definition: Addition of new individuals to a population.
Example: Young reaching breeding age.
🧠 *New animals joining group.*
Cue: New additions.

2️⃣6️⃣ Mortality

Definition: Rate of death in a population.
Example: Annual death rate.
🧠 *Falling line.*
Cue: Death rate.

2️⃣7️⃣ Population viability

Definition: Likelihood a population will persist.
Example: Long-term survival probability.
🧠 *Population with shield.*
Cue: Will it survive?

2️⃣8️⃣ Minimum viable population

Definition: Smallest population size needed for survival.
Example: Threshold below which extinction risk rises.
🧠 *Danger line.*
Cue: Minimum size.

2️⃣9️⃣ Metapopulation

Definition: Group of connected populations.
Example: Populations linked by dispersal.
🧠 *Connected patches.*
Cue: Populations linked.

3️⃣0️⃣ Source population

Definition: Population producing excess individuals.
Example: Habitat with high reproduction.
🧠 *Arrows going out.*
Cue: Sends individuals.

3️⃣1️⃣ Sink population

Definition: Population relying on immigration.
Example: Poor habitat area.
🧠 *Arrows coming in.*
Cue: Needs immigrants.

3️⃣2️⃣ Dispersal

Definition: Movement of individuals from birthplace.
Example: Young animals leaving natal area.
🧠 *Animal moving away.*
Cue: Spread out.

3️⃣3️⃣ Home range

Definition: Area regularly used by an animal.
Example: Deer roaming area.
🧠 *Outlined territory.*
Cue: Regular area.

3️⃣4️⃣ Territory

Definition: Area defended against others.
Example: Bird nesting territory.
🧠 *Boundary lines.*
Cue: Defended area.

3️⃣5️⃣ Habitat suitability

Definition: Ability of habitat to support species.
Example: High food and shelter availability.
🧠 *Habitat score meter.*
Cue: How good habitat is.

3️⃣6️⃣ Habitat quality

Definition: Degree to which habitat meets species needs.
Example: Healthy forest vs degraded forest.
🧠 *Good vs bad habitat.*
Cue: Habitat condition.

3️⃣7️⃣ Resource availability

Definition: Amount of usable resources present.
Example: Food and water supply.
🧠 *Food icons.*
Cue: Resources present.

3️⃣8️⃣ Competition

Definition: Struggle for limited resources.
Example: Two species competing for food.
🧠 *Animals fighting.*
Cue: Same resource.

3️⃣9️⃣ Intraspecific competition

Definition: Competition within the same species.
Example: Deer competing with deer.
🧠 *Same species conflict.*
Cue: Same species.

4️⃣0️⃣ Interspecific competition

Definition: Competition between different species.
Example: Deer and cattle competing.
🧠 *Different species conflict.*
Cue: Different species.

4️⃣1️⃣ Predation

Definition: One organism kills and eats another.
Example: Wolf hunting deer.
🧠 *Predator chasing prey.*
Cue: Eat or be eaten.

4️⃣2️⃣ Predator-prey dynamics

Definition: Population interactions between predators and prey.
Example: Wolf and deer cycles.
🧠 *Up-down lines.*
Cue: Linked populations.

4️⃣3️⃣ Parasitism

Definition: One organism benefits while harming host.
Example: Tick on deer.
🧠 *Parasite attached.*
Cue: One benefits.

4️⃣4️⃣ Mutualism

Definition: Interaction benefiting both species.
Example: Bees pollinating flowers.
🧠 *Two species smiling.*
Cue: Both benefit.

4️⃣5️⃣ Commensalism

Definition: One species benefits, other unaffected.
Example: Birds nesting in trees.
🧠 *One benefits, one neutral.*
Cue: One wins.

4️⃣6️⃣ Population monitoring

Definition: Tracking population size and trends.
Example: Annual wildlife surveys.
🧠 *Clipboard + animals.*
Cue: Track numbers.

4️⃣7️⃣ Census

Definition: Complete count of individuals.
Example: Counting all animals in area.
🧠 *Counting marks.*
Cue: Total count.

4️⃣8️⃣ Sampling

Definition: Estimating population using a subset.
Example: Survey plots.
🧠 *Small area highlighted.*
Cue: Estimate.

4️⃣9️⃣ Population modeling

Definition: Using math to predict population changes.
Example: Computer simulations.
🧠 *Graph on screen.*
Cue: Predict future.

5️⃣0️⃣ Population management

Definition: Actions taken to regulate population size.
Example: Harvest regulations.
🧠 *Hands adjusting balance.*
Cue: Control numbers.