BANK 6 — PRE-MAP FINAL (50)

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1 Conservation biology

Definition: Science focused on protecting biodiversity.
Example: Managing endangered species.
🧠 *Shield over wildlife.*
Cue: Protect biodiversity.

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2 Extinction

Definition: Permanent loss of a species.
Example: Species no longer exists.
🧠 *Animal fading away.*
Cue: Gone forever.

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3 Endemism

Definition: Species restricted to a specific area.
Example: Island species found nowhere else.
🧠 *Species inside boundary.*
Cue: Only here.

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4 Genetic diversity

Definition: Variety of genes within a species.
Example: Different traits in a population.
🧠 *Different DNA strands.*
Cue: Gene variety.

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5 Species diversity

Definition: Variety of species in an area.
Example: Many species in one habitat.
🧠 *Multiple species icons.*
Cue: Species count.

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6 Ecosystem diversity

Definition: Variety of ecosystems in a region.
Example: Forests, wetlands, grasslands.
🧠 *Different habitat icons.*
Cue: Habitat variety.

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7 Population bottleneck

Definition: Sharp reduction in population size.
Example: Disaster killing many individuals.
🧠 *Narrow bottleneck.*
Cue: Sudden drop.

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8 Founder effect

Definition: Reduced genetic diversity from small founding group.
Example: Few individuals colonizing island.
🧠 *Small group starting population.*
Cue: Small start.

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9 Inbreeding

Definition: Mating between closely related individuals.
Example: Isolated populations.
🧠 *Looped family tree.*
Cue: Related mating.

🔟 Genetic drift

Definition: Random change in gene frequencies.
Example: Chance survival events.
🧠 *Dice + DNA.*
Cue: Random genes.

1️⃣ 1️⃣ Gene flow

Definition: Movement of genes between populations.
Example: Migration mixing populations.
🧠 *Arrows between groups.*
Cue: Gene movement.

1️⃣ 2️⃣ Hybridization

Definition: Breeding between different species or subspecies.
Example: Hybrid offspring.
🧠 *Two species merging.*
Cue: Mixed species.

1️⃣ 3️⃣ Speciation

Definition: Formation of new species.
Example: Populations diverging over time.
🧠 *One branch splitting into two.*
Cue: New species.

1️⃣ 4️⃣ Allopatric speciation

Definition: Speciation due to geographic isolation.
Example: Mountain splitting populations.
🧠 *Barrier dividing population.*
Cue: Geography splits.

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1 5 Sympatric speciation

Definition: Speciation without geographic separation.
Example: Behavioral isolation.
🧠 *Same area, different groups.*
Cue: Same place.

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1 6 Natural selection

Definition: Traits improving survival become common.
Example: Camouflage advantage.
🧠 *Survivors highlighted.*
Cue: Survival advantage.

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1 7 Adaptation

Definition: Trait increasing fitness.
Example: Thick fur in cold climates.
🧠 *Animal adapted to environment.*
Cue: Better fit.

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1 8 Fitness

Definition: Ability to survive and reproduce.
Example: Producing offspring.
🧠 *Offspring count.*
Cue: Reproductive success.

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1 9 Selection pressure

Definition: Environmental factors influencing survival.
Example: Predation pressure.
🧠 *Pressure arrows.*
Cue: Environmental push.

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2 0 Evolution

Definition: Change in populations over generations.
Example: Gradual trait changes.
🧠 *Timeline of change.*
Cue: Over generations.

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2 1 Conservation genetics

Definition: Using genetics to manage populations.
Example: Preventing inbreeding.
🧠 *DNA + wildlife.*
Cue: Genetics for conservation.

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2 2 Small population effects

Definition: Risks faced by small populations.
Example: Higher extinction risk.
🧠 *Tiny group with danger sign.*
Cue: Small = risky.

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2 3 Allee effect

Definition: Reduced fitness at low population size.
Example: Difficulty finding mates.
🧠 *Lonely individual.*
Cue: Too few.

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2 4 Demographic stochasticity

Definition: Random birth and death variation.
Example: Chance imbalance in sexes.
🧠 *Coin flip.*
Cue: Random demographics.

2 5 Environmental stochasticity

Definition: Random environmental changes.
Example: Drought or storms.
🧠 *Storm cloud.*
Cue: Random environment.

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2 6 Catastrophes

Definition: Rare events causing major mortality.
Example: Wildfires.
🧠 *Explosion icon.*
Cue: Rare disaster.

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2 7 Extinction vortex

Definition: Downward spiral toward extinction.
Example: Small population → inbreeding → decline.
🧠 *Spiral down.*
Cue: Vicious cycle.

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2 8 Recovery thresholds

Definition: Population levels needed for recovery.
Example: Minimum breeding numbers.
🧠 *Line to cross.*
Cue: Reach threshold.

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2 9 Population recovery

Definition: Increase from low population levels.
Example: Conservation success.
🧠 *Arrow upward.*
Cue: Bounce back.

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3 0 Genetic rescue

Definition: Increasing diversity by introducing individuals.
Example: Adding animals from other populations.
🧠 *New DNA added.*
Cue: Add genes.

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3 1 Assisted migration

Definition: Moving species to suitable habitats.
Example: Climate adaptation relocation.
🧠 *Human helping species move.*
Cue: Help move.

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3 2 Ex situ conservation

Definition: Conservation outside natural habitat.
Example: Zoos and seed banks.
🧠 *Facilities icon.*
Cue: Outside habitat.

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3 3 In situ conservation

Definition: Conservation within natural habitat.
Example: Protected areas.
🧠 *Habitat protected.*
Cue: In natural place.

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3 4 Seed banks

Definition: Storage of seeds for conservation.
Example: Frozen seed vaults.
🧠 *Seeds in storage.*
Cue: Save seeds.

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3 5 Cryopreservation

Definition: Preserving genetic material by freezing.
Example: Frozen embryos.
🧠 *Snowflake + DNA.*
Cue: Freeze genetics.

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3 6 Reproductive technologies

Definition: Techniques aiding reproduction.
Example: Artificial insemination.
🧠 *Medical tools + animals.*
Cue: Assisted reproduction.

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3 7 Reproductive success

Definition: Number of offspring produced.
Example: High survival of young.
🧠 *Many offspring icons.*
Cue: Offspring count.

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3 8 Metapopulation dynamics

Definition: Population processes among patches.
Example: Colonization and extinction.
🧠 *Patches with arrows.*
Cue: Patch interactions.

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3 9 Source-sink dynamics

Definition: Interaction between productive and poor habitats.
Example: Source supporting sink.
🧠 *Arrows from source to sink.*
Cue: Source feeds sink.

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4 0 Habitat connectivity

Definition: Degree habitats are linked.
Example: Corridors enabling movement.
🧠 *Connected patches*.
Cue: Connected habitat.

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4 1 Landscape permeability

Definition: Ease of movement across landscape.
Example: Wildlife-friendly land use.
🧠 *Open pathways*.
Cue: Ease of movement.

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4 2 Barriers

Definition: Features limiting movement.
Example: Highways.
🧠 *Blocked path*.
Cue: Movement blocked.

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4 3 Fragmentation effects

Definition: Impacts of habitat fragmentation.
Example: Isolated populations.
🧠 *Isolated patches*.
Cue: Isolation impacts.

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4 4 Edge effects

Definition: Ecological changes at habitat boundaries.
Example: Increased predation at edges.
🧠 *Edge highlighted*.
Cue: Edge impact.

4 5 Core habitat

Definition: Interior habitat away from edges.
Example: Undisturbed forest center.
🧠 *Center area.*
Cue: Interior area.

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4 6 Reserve design

Definition: Planning protected area layout.
Example: Large connected reserves.
🧠 *Reserve map.*
Cue: Design protection.

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4 7 Conservation prioritization

Definition: Ranking areas or species for protection.
Example: Protecting hotspots first.
🧠 *Priority list.*
Cue: Rank importance.

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4 8 Triage

Definition: Allocating resources where success is likely.
Example: Saving viable populations.
🧠 *Sorting categories.*
Cue: Prioritize survival.

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4 9 Cost-effectiveness

Definition: Achieving goals at lowest cost.
Example: Choosing efficient actions.
🧠 *Dollar + checkmark.*
Cue: Best value.

5 0 Conservation planning

Definition: Strategic approach to biodiversity protection.

Example: Regional conservation plans.

🧠 *Map + checklist*.

Cue: Plan conservation.