

Definition: a group of the _____ in an area

Some questions to start our thinking...

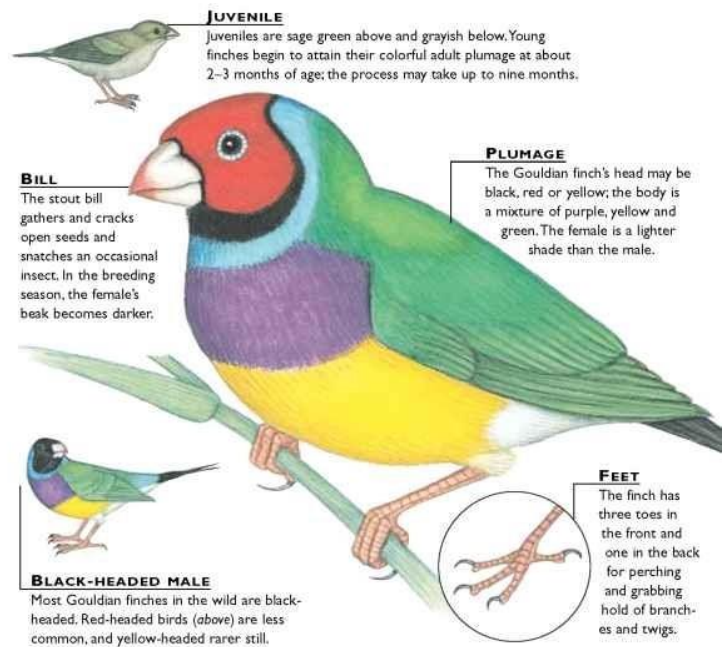
In a given ecosystem, is there a limit to the number of organisms it can support?

Which ecosystems most likely have more limiting factors than others?

What are some limiting factors that control population growth?

Gouldian finches are small Australian birds that often live in small flocks.

What would limit their population's size? (List them here)



Four Factors that affect population numbers:

Natality - _____

Mortality - _____

Immigration - _____

Emigration - _____

Why is density so important?

Density is the _____

If density is high, there is a high concentration of individuals in that area

If density is low, there is a low concentration of individuals in that area

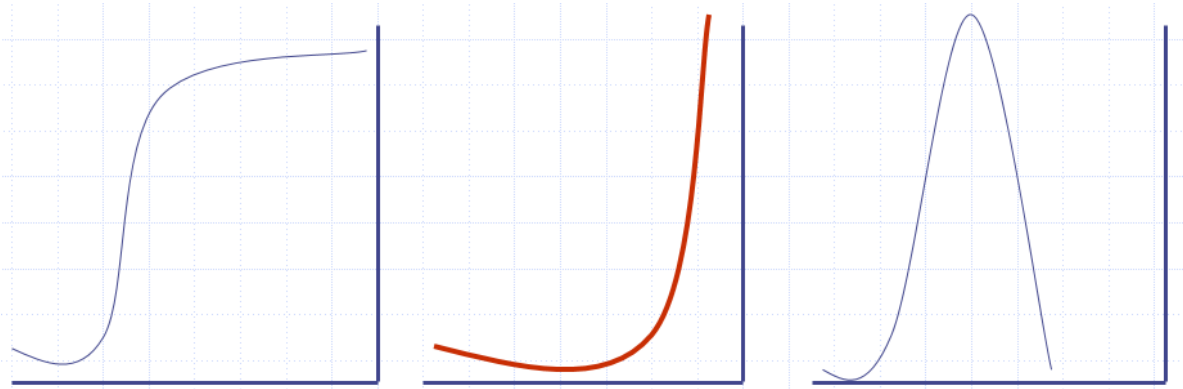
What sort of things are dependent on density? _____

Density dependent or independent?

If there's a large number of organisms in one area, will disease spread faster or slower? _____

If there's a drought and wildfires decrease the food supply, was density a factor? _____

How can we more easily see a population's growth?



S-curve - _____

J-curve - _____

Boom & Bust curve – _____

Status of the Gouldian finch

Ongoing research by Dr. Sarah Legge is telling us about how the Gouldian finch is doing in the wild

Dr. Legge has discovered that the _____ on which the finches feed only produce seed if they haven't been _____.

This evidence may change how _____ are used to control local plant populations.

According to the Australian Department of the Environment, the bird is listed as endangered and the _____ is keeping the species numbers up.

Age-Sex Pyramids (histograms) Show _____ versus _____ segments of population

Which of the pyramids below show the greatest population growth? _____

Which of the pyramids below show a stable population? How so? _____

What does it mean to be endemic? _____

- An island
- A specific habitat type
- A defined zone

Endemic species are _____ because these populations are confined to a small geographic area.

Some events can increase the pressure felt by these small, localized populations (H.I.P.P.O. Dilemma)

H _____ I _____ P _____
P _____ O _____

Examples of Endemic Species

Islands - Most common places for endemics because they are geographically isolated

Non-Island Examples of Endemic Species

Florida Scrub Jay - Found only in _____ of a small area of central Florida

Vulnerable due to _____

Cape Vulture - Found only in _____

Endangered due to loss of _____, poisoning, loss of foraging habitat, and electrocution on cables.

Biodiversity hotspots are areas where there is a _____ contained in a unique geographic area. Endemic species here can be at greater risk.

Puerto Rican Parrot Project

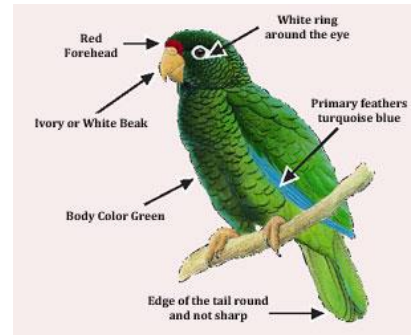
This species is _____ to the islands of Puerto Rico

Works to maintain a _____ of *Amazona vittata*

_____ has continued to increase

Wild and captive populations total approximately _____

Two free flying flocks exist and a third being planned



Age-sex pyramid – Puerto Rican Parrots

What information is included in this diagram? _____

Managed Populations

Institutions like zoos and _____ manage populations

Programs like Species Survival Plans (SSPs) and Population Management Plans in zoos and Model Avicultural Programs

ensure “ _____ ” are kept genetically diverse

This can ensure _____ and/or _____ for many species

Privately-held populations

Private aviculturists like Nancy Speed of Mississippi breed the _____, a species endangered due to habitat loss

Permits are required to move birds across state lines and careful record-keeping is necessary to monitor genetic

diversity when birds are listed under the _____.

It is vital for managed breeding to continue since _____ has consistently decreased for many species.

