

Biologia

Intensivo

Frente 1

Especiaçãoção, Taxonomia e Zoologia (aula 2)

Especiaçãoção, Taxonomia, Intro
Zoologia e Porífera

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O que tem pra hoje?

- ▶ Especiação
- ▶ Deriva
- ▶ Taxonomia
- ▶ Zoologia
 - ▶ Porifera
 - ▶ Cnidaria



Menu

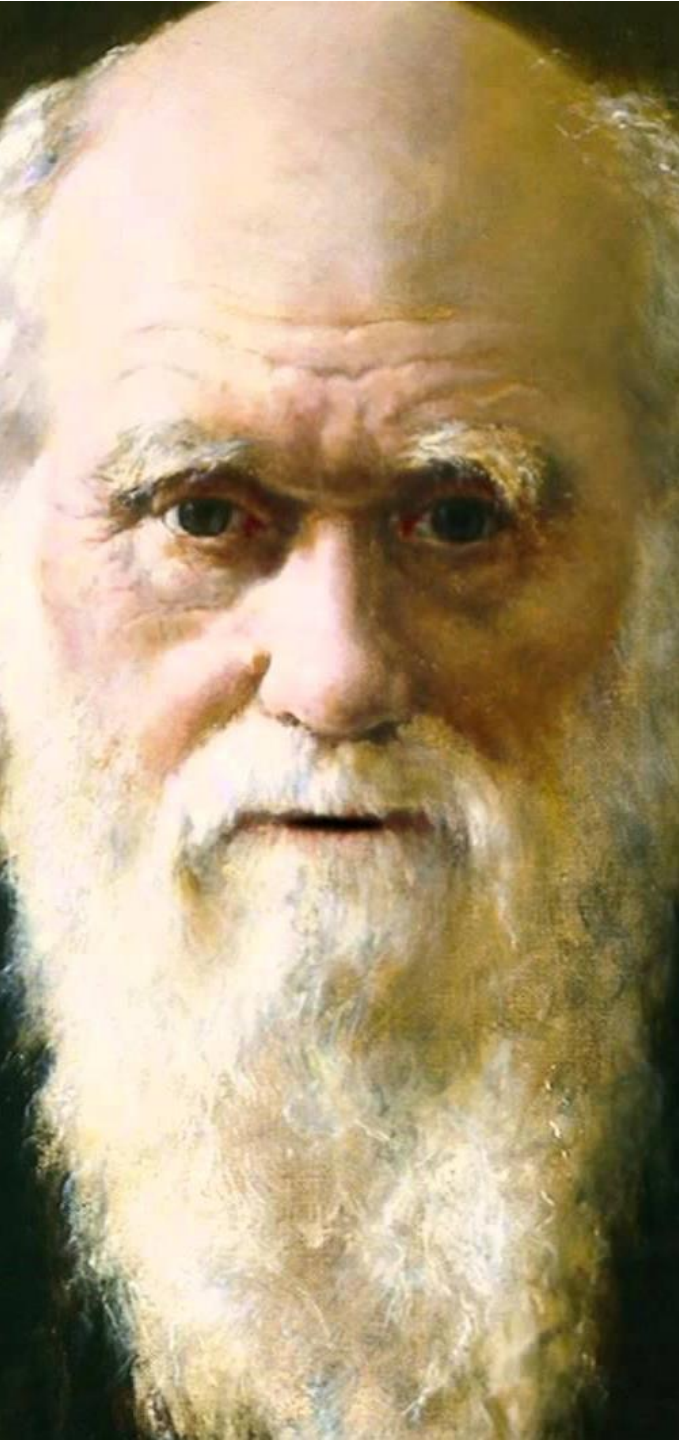
Nos episódios anteriores:

▶ Vida

- ▶ Como surgiu?
 - ▶ Abiogênese
 - ▶ Biogênese
 - ▶ Teoria dos coacervados

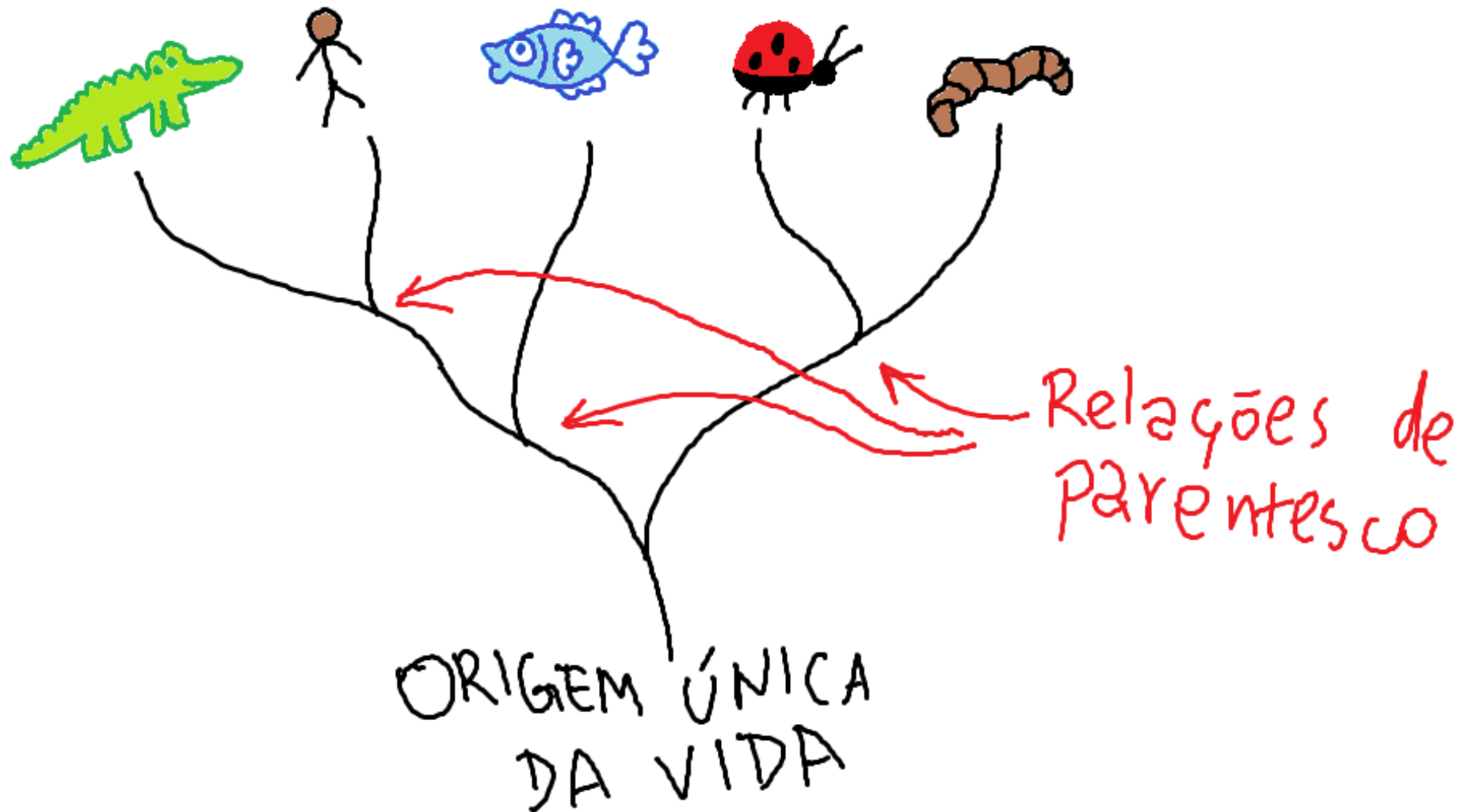
▶ Diversidade

- ▶ Fixismo
- ▶ Lamarkismo
- ▶ Darwinismo
- ▶ Neodarwinismo



Nos episódios anteriores:

- ▶ Teoria da Evolução de Darwin
 - ▶ Ancestralidade comum
 - ▶ Seleção Natural



NÃO existe ser vivo mais evoluído que outro

Duas definições

(existem outras além das que estão aqui)

- ▶ Espécie

- ▶ População

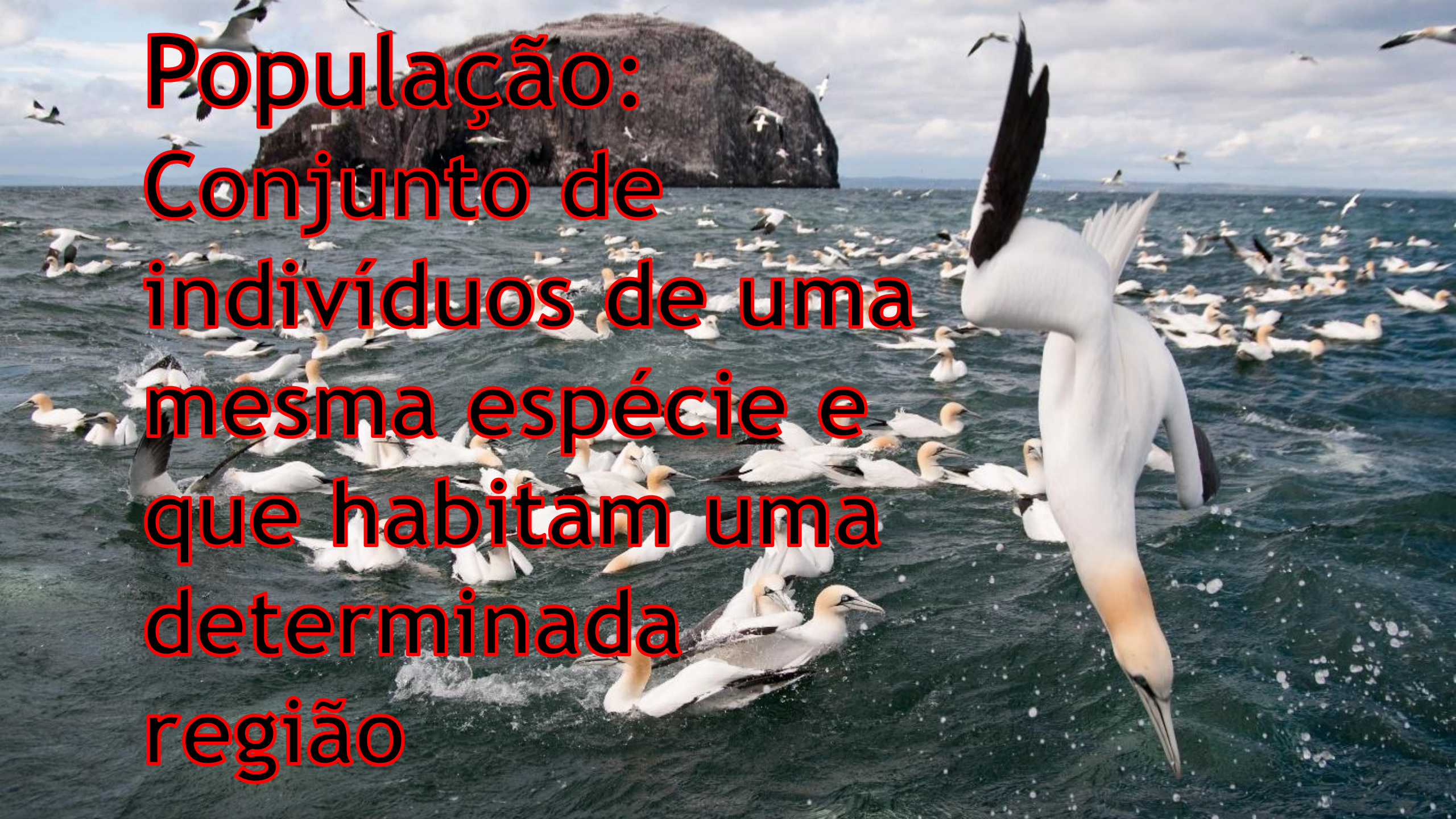


Espécie:
Conjunto de
indivíduos
capazes de
cruzarem entre
si e gerarem
descendentes
férteis

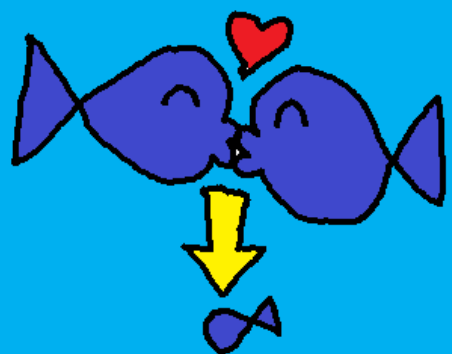


Espécie:
Conjunto de
indivíduos
capazes de
cruzarem entre
si e gerarem
descendentes
férteis

População:
Conjunto de
indivíduos de uma
mesma espécie e
que habitam uma
determinada
região

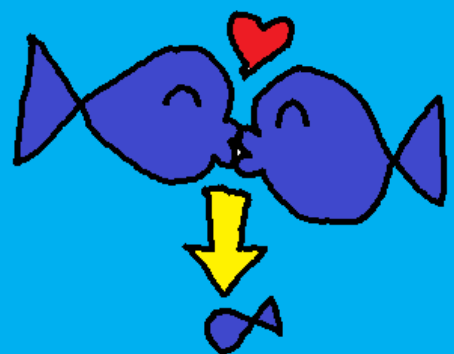


Seleção Natural

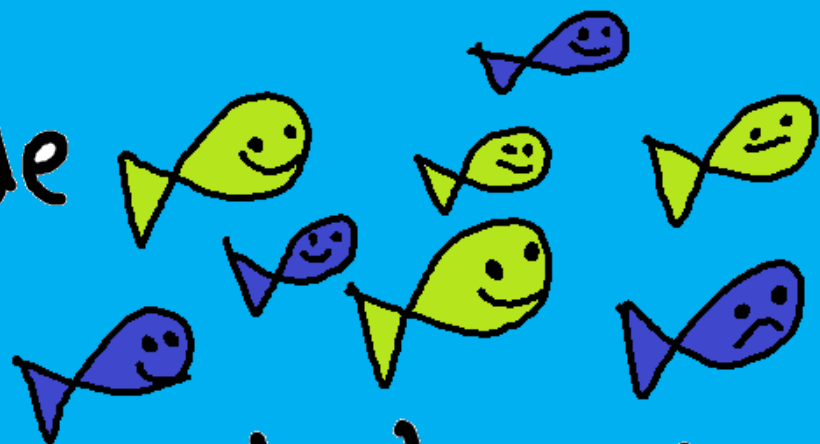


Hereditariedade

Seleção Natural

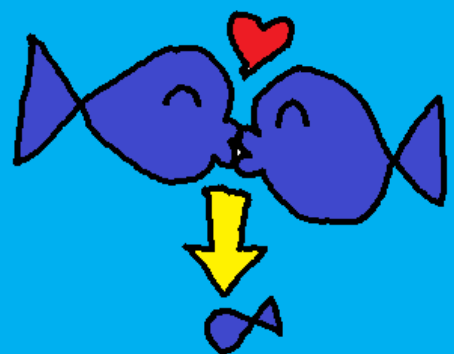


Hereditariedade

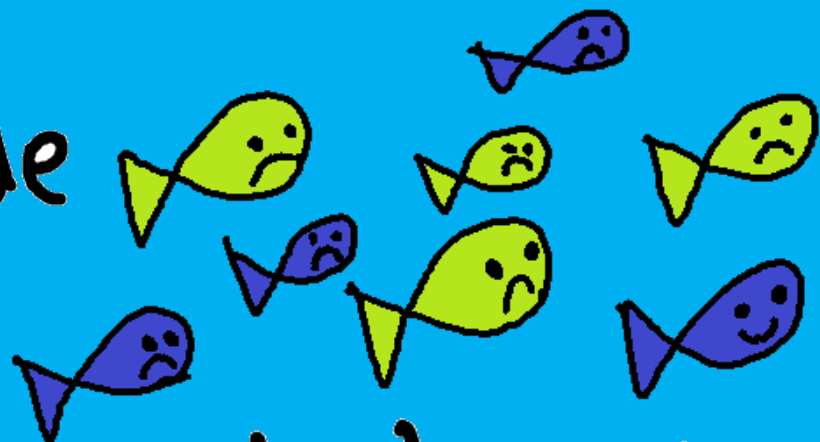


variabilidade

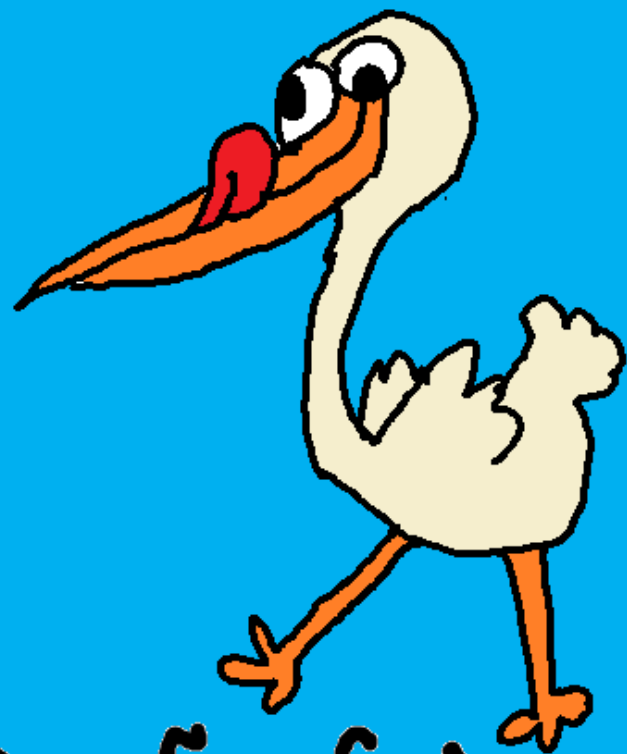
Seleção Natural



Hereditabilidade



variabilidade



Pressão Seletiva

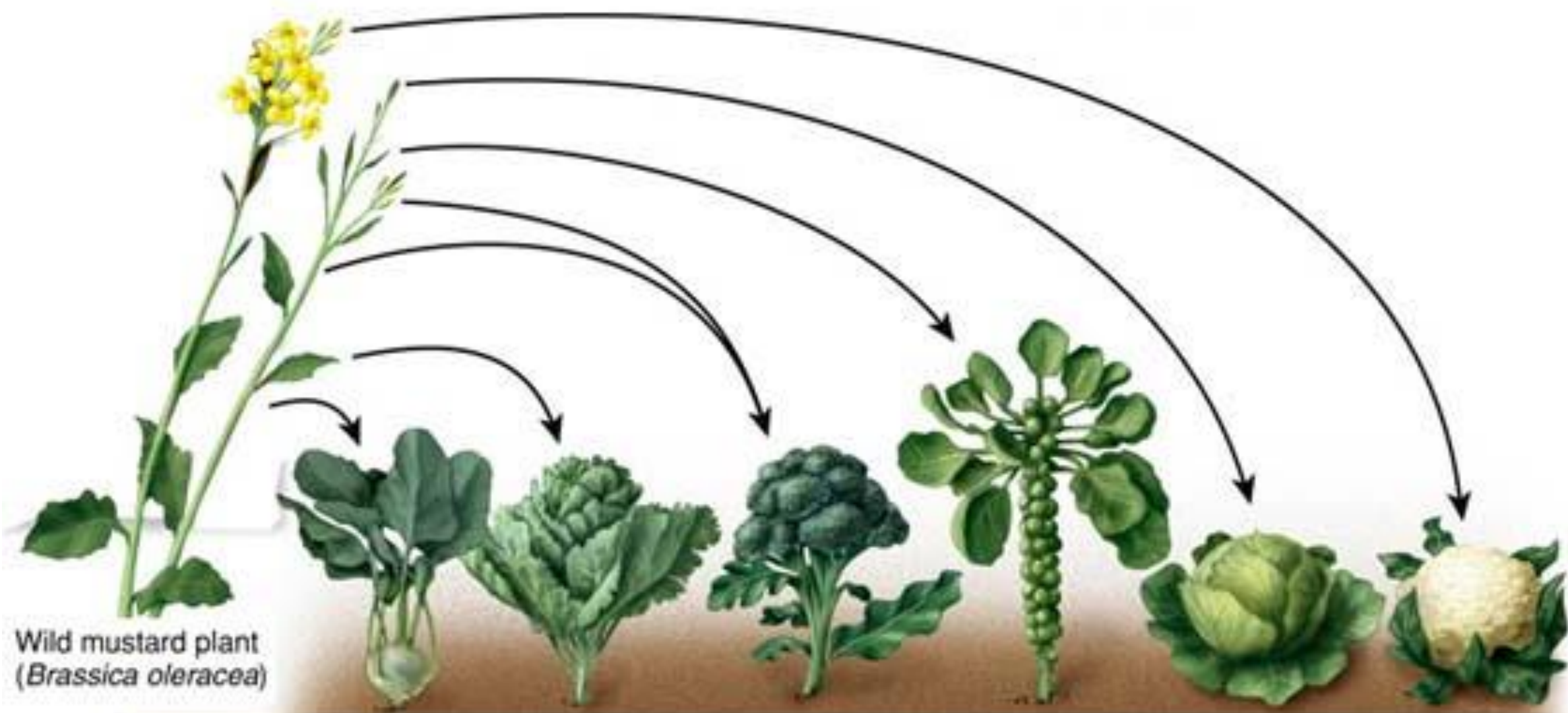
Seleção artificial







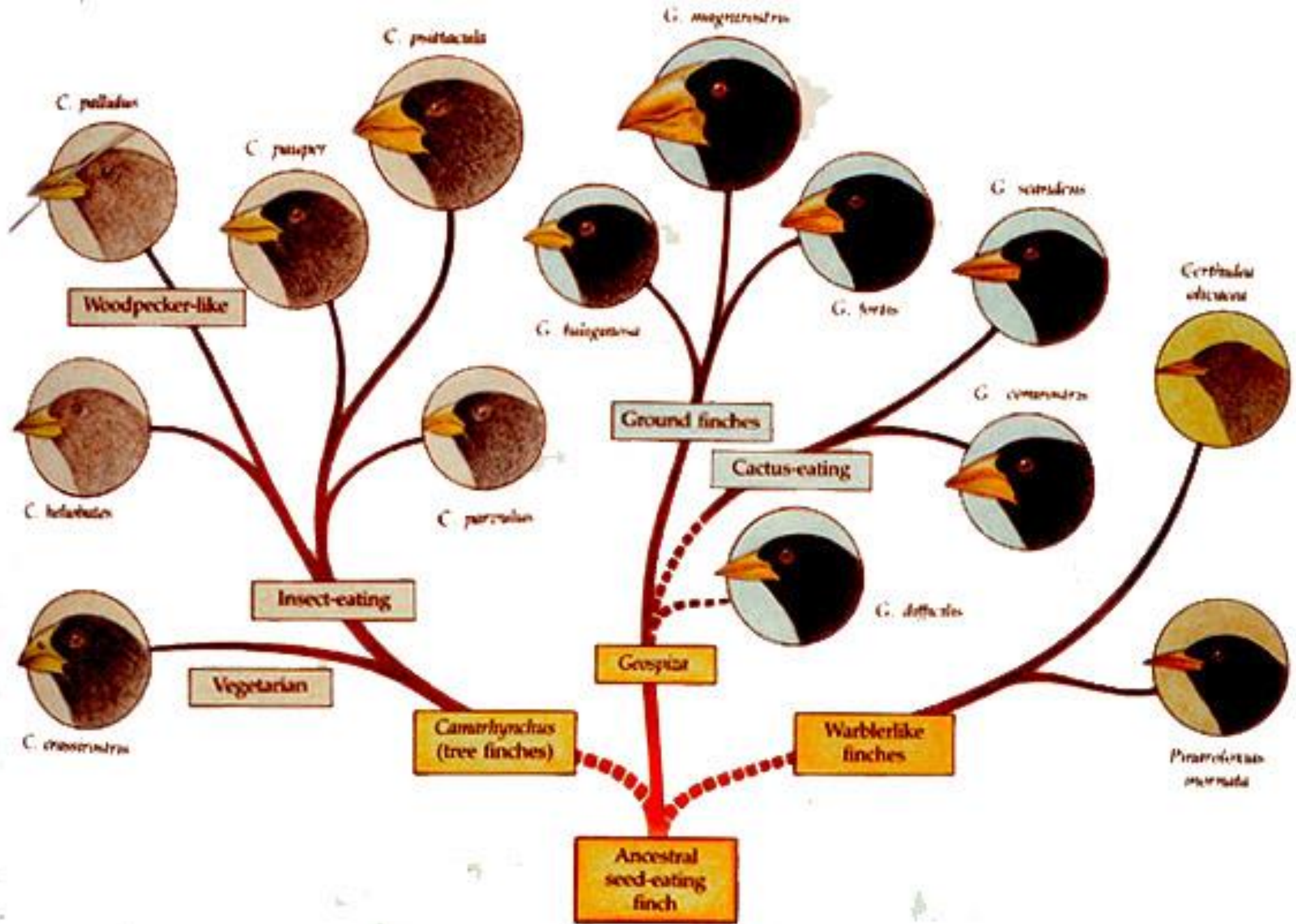




Wild mustard plant
(*Brassica oleracea*)

Strain	Kohlrabi	Kale	Broccoli	Brussels sprouts	Cabbage	Cauliflower
Modified trait	Stem	Leaves	Flower buds and stem	Lateral leaf buds	Terminal leaf bud	Flower buds

Especiação



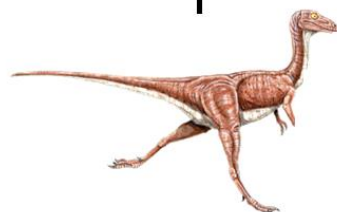




Atval



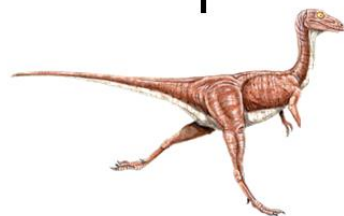
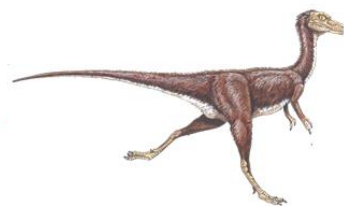
Atual



Ancestral



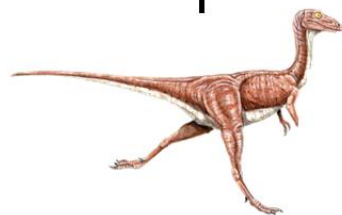
Atual



Ancestral



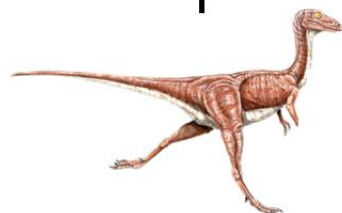
Actual



Ancestral



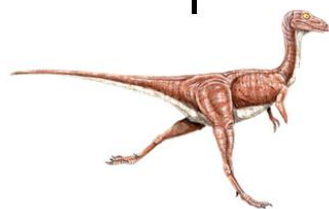
Actual



Ancestral



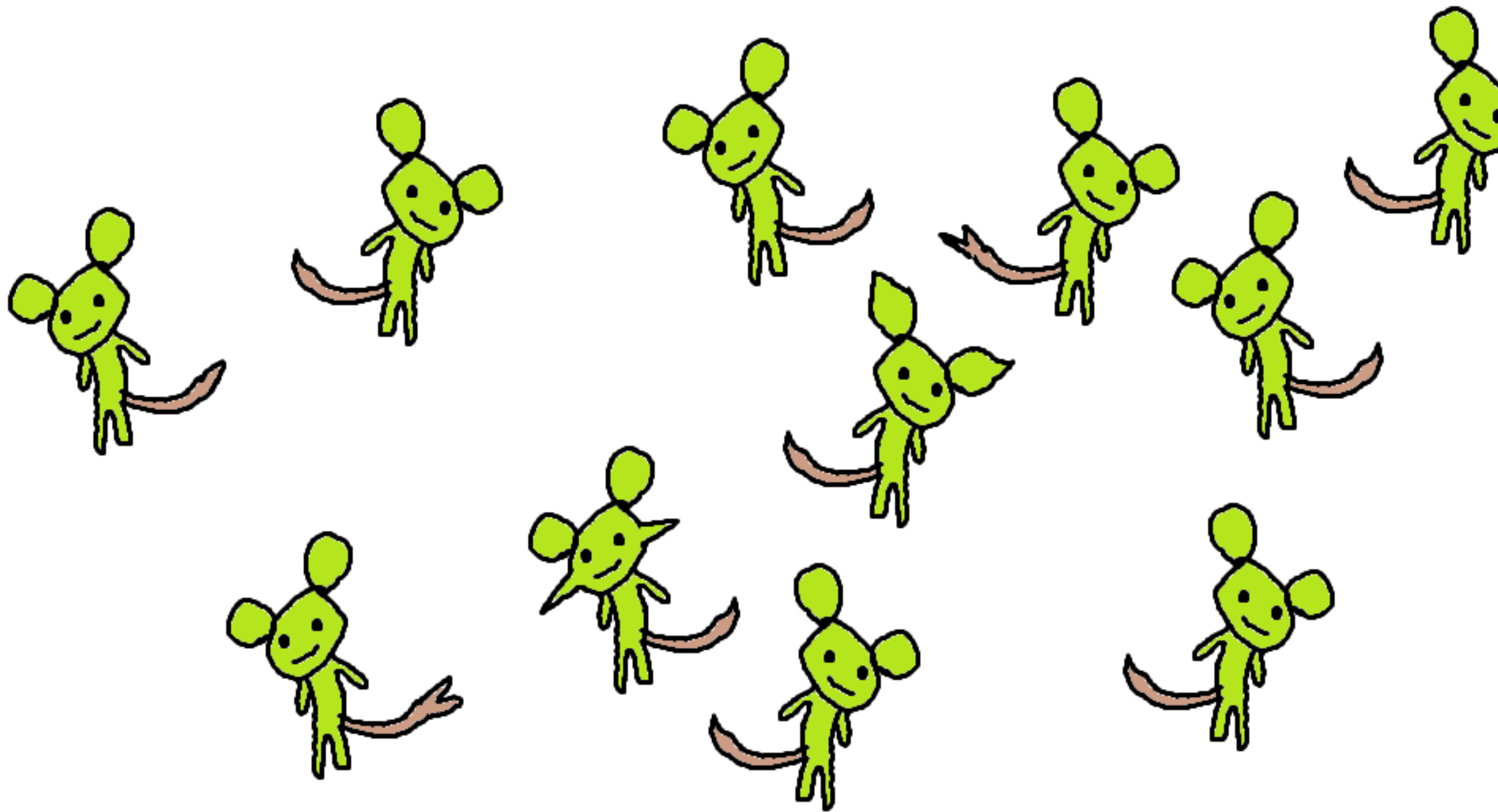
Atual

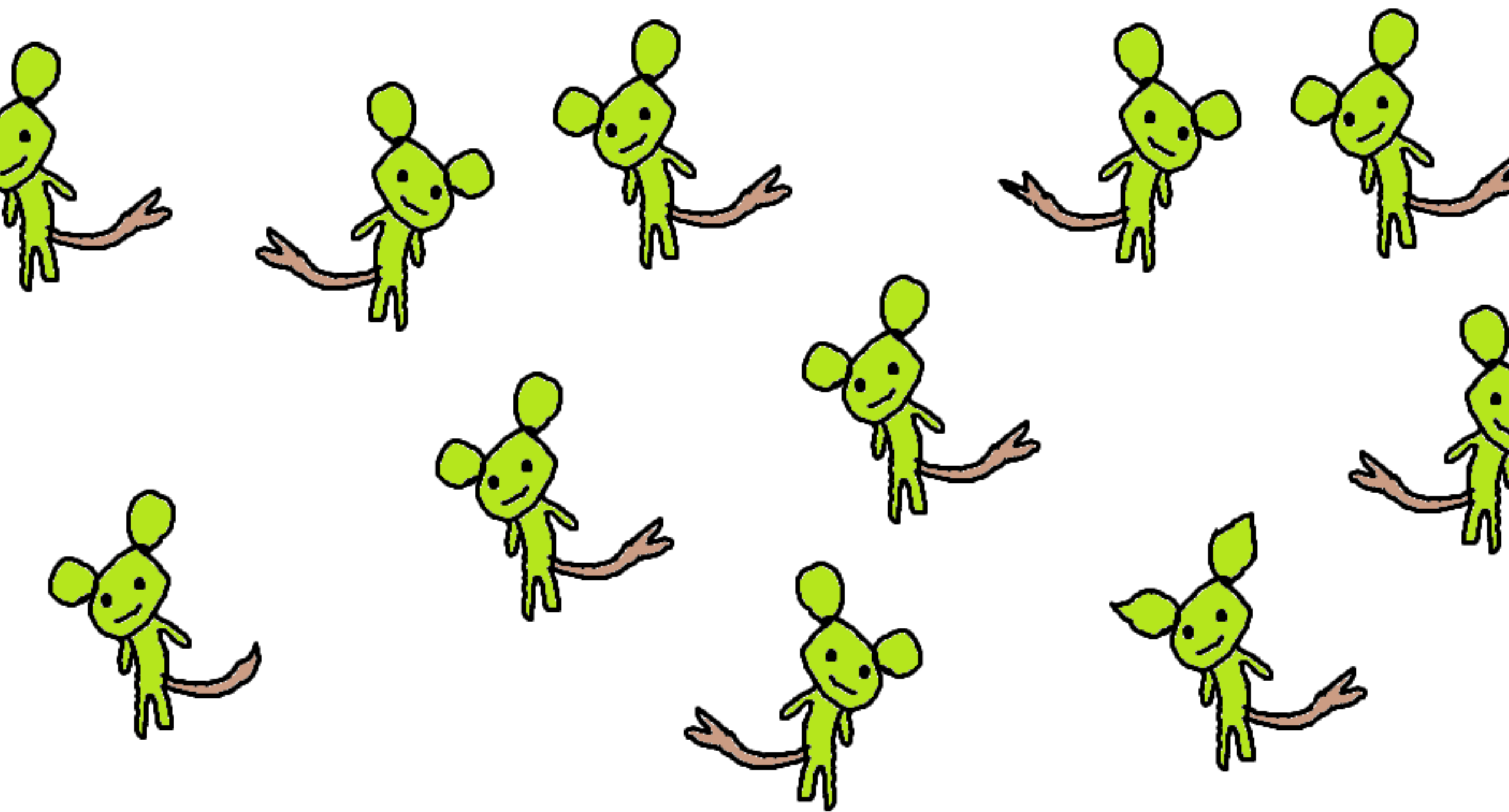


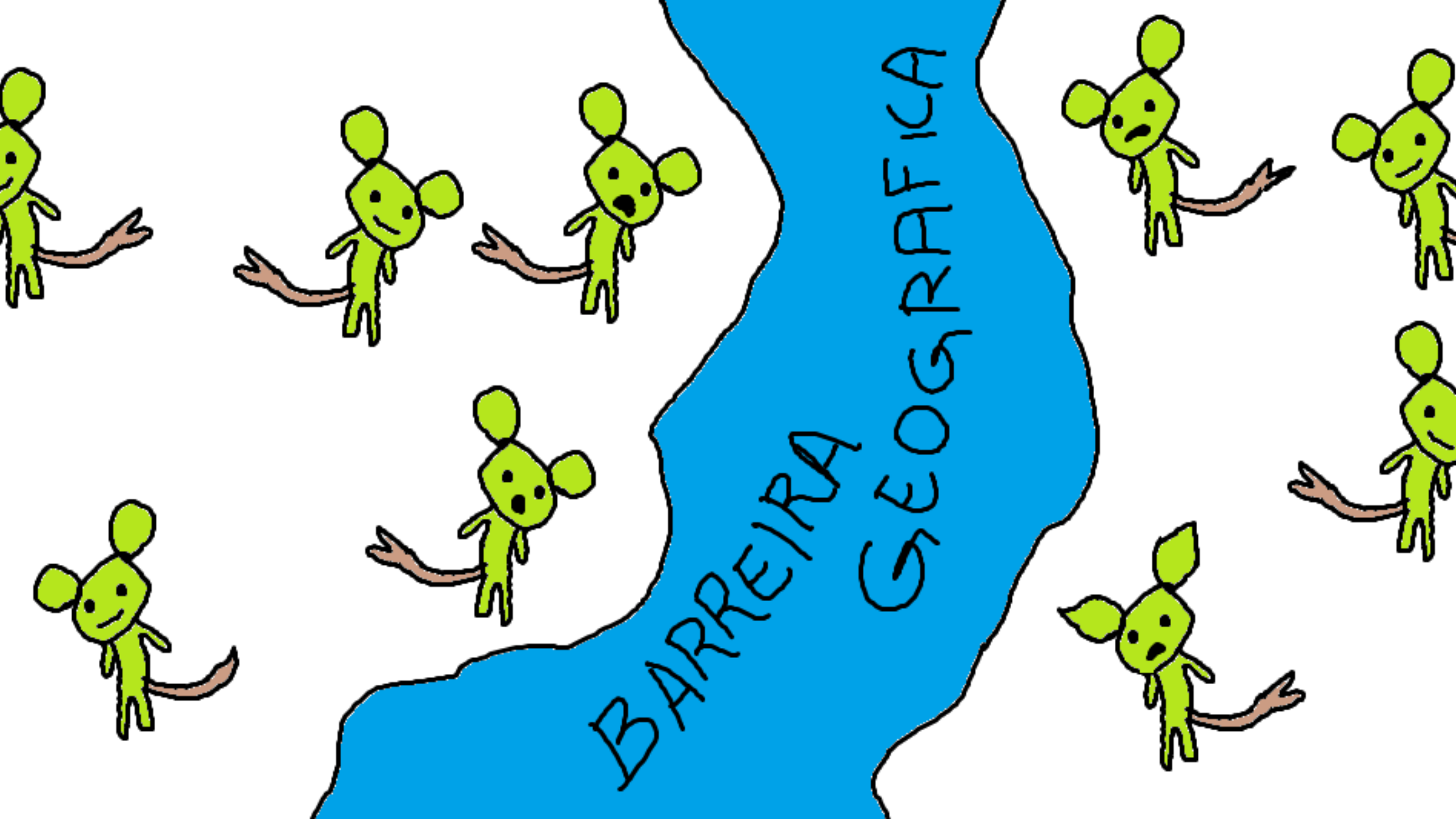
Ancestral

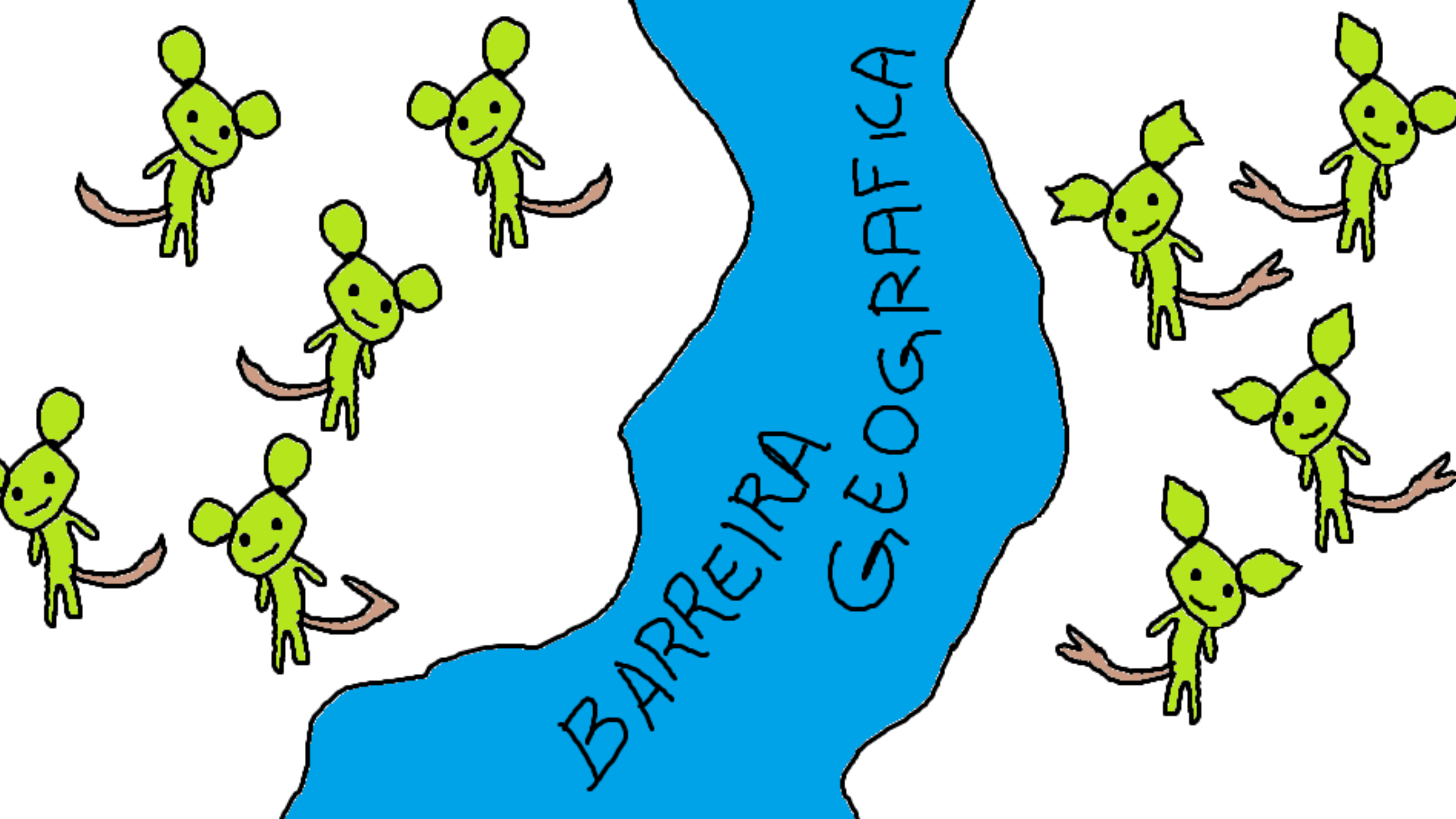
ANAGÊNESE

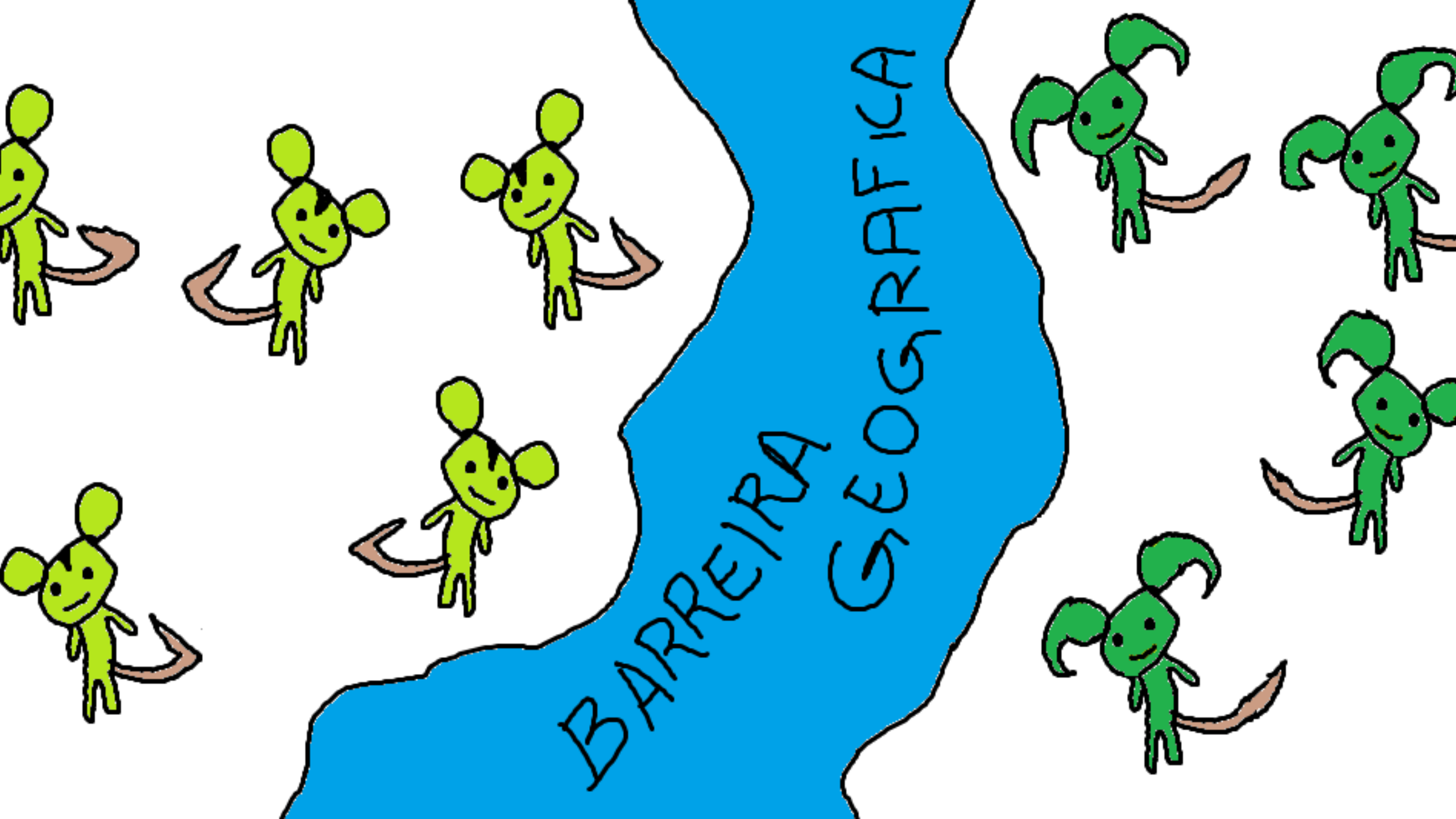
Anagênese: modificação de uma população ao longo do tempo

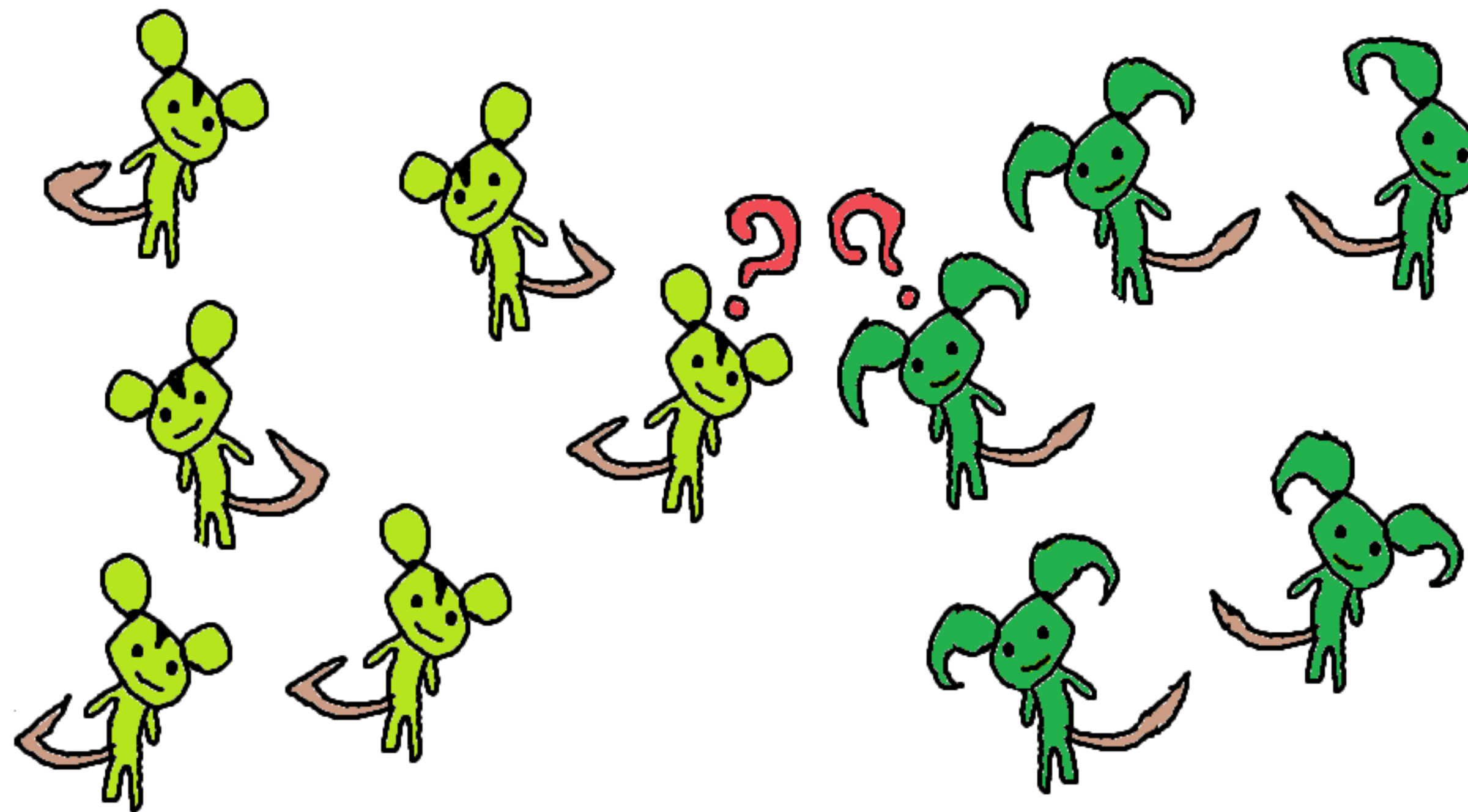


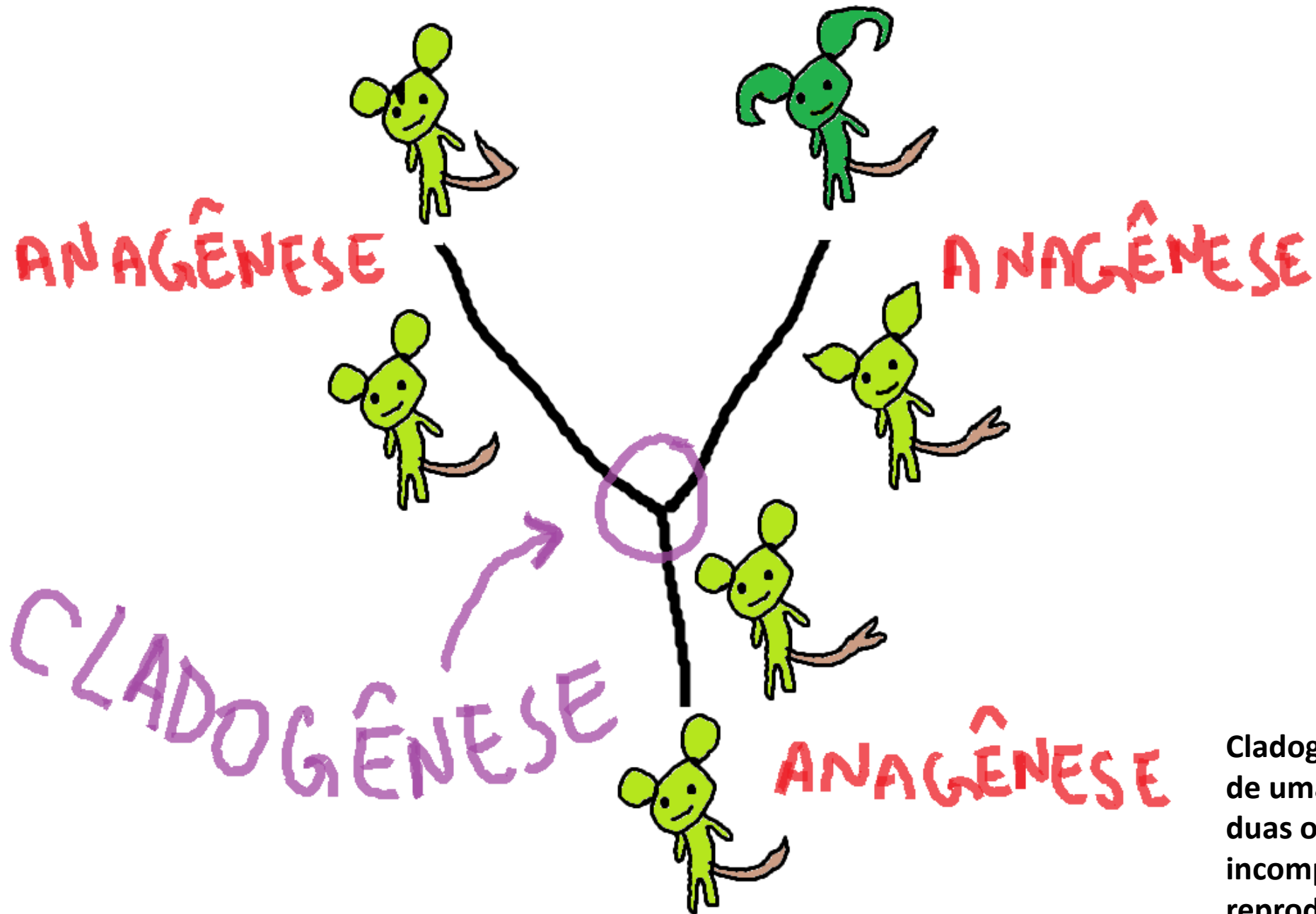












Cladogênese: Ruptura de uma população em duas ou mais população incompatíveis reprodutivamente

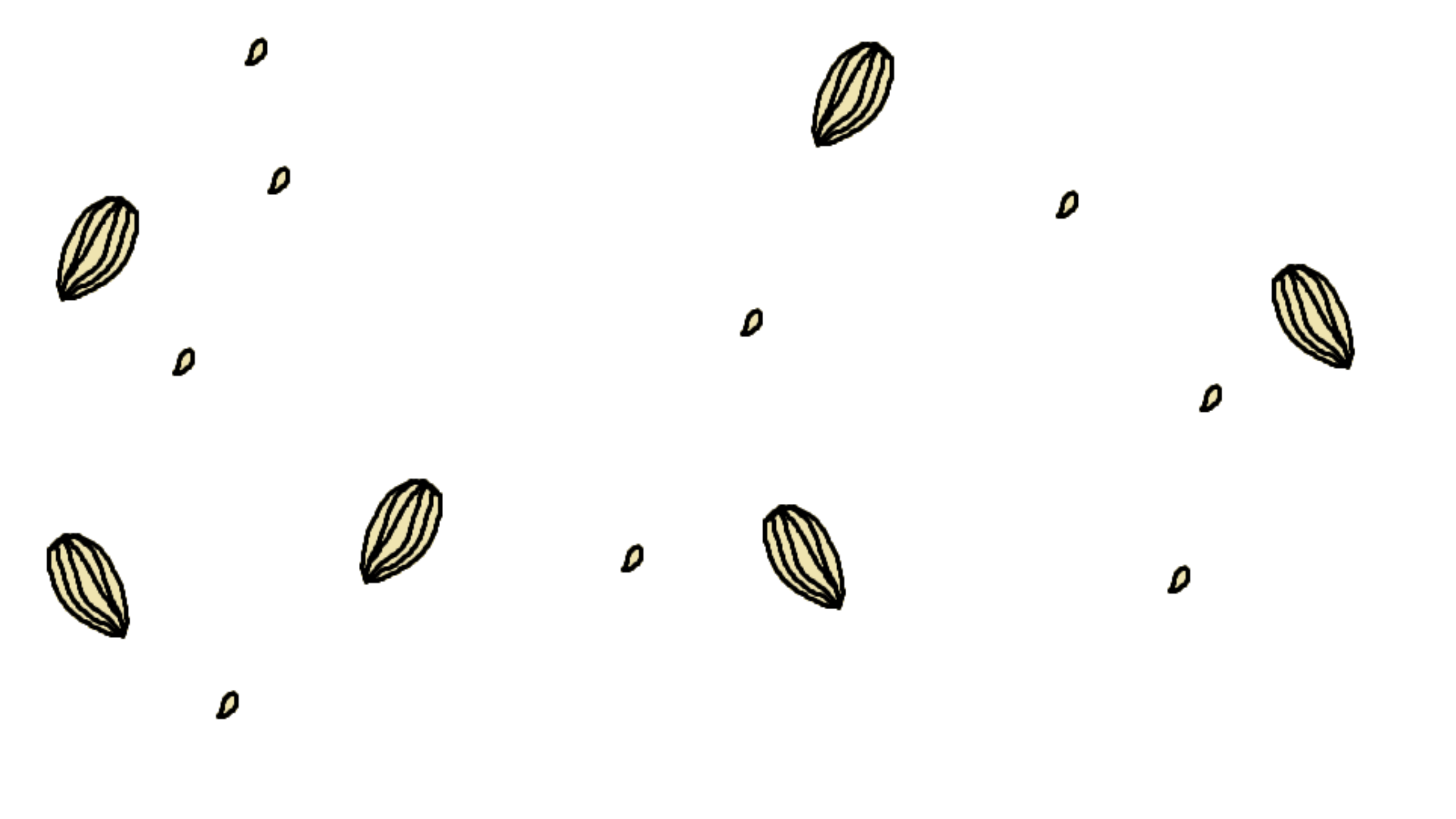
nº de
aves



tamanho
do bico

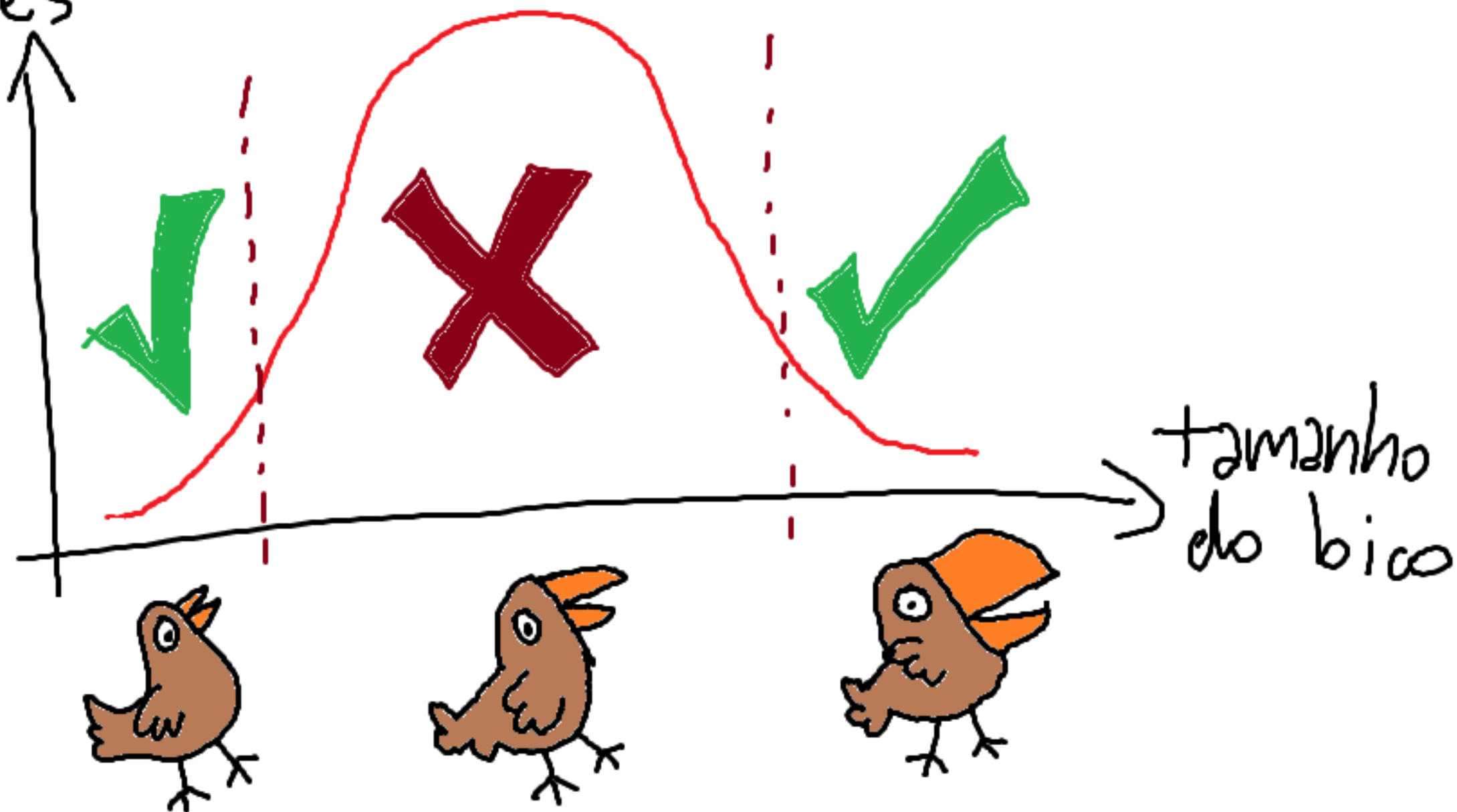






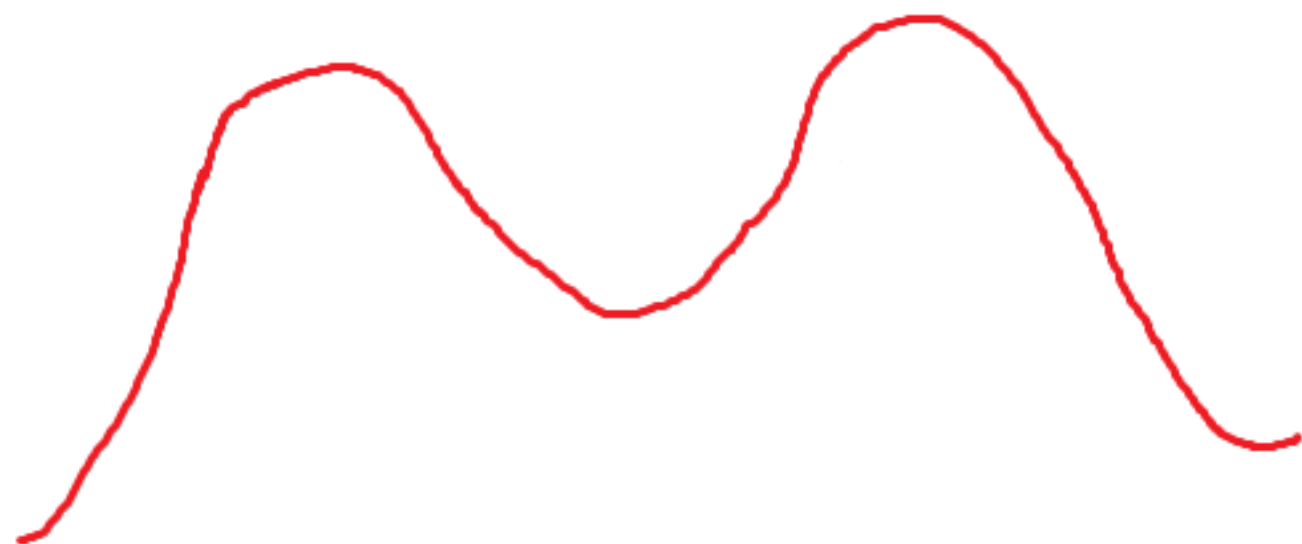


no de
aves



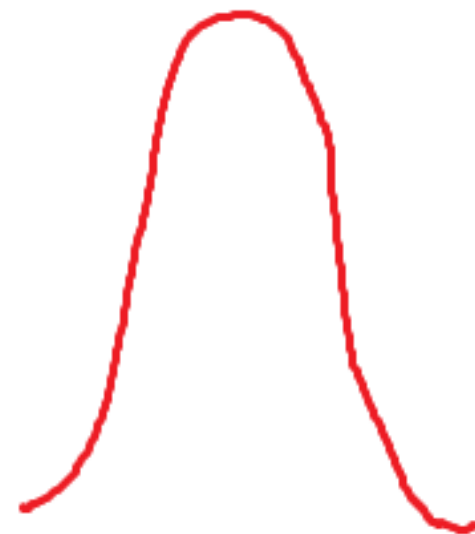
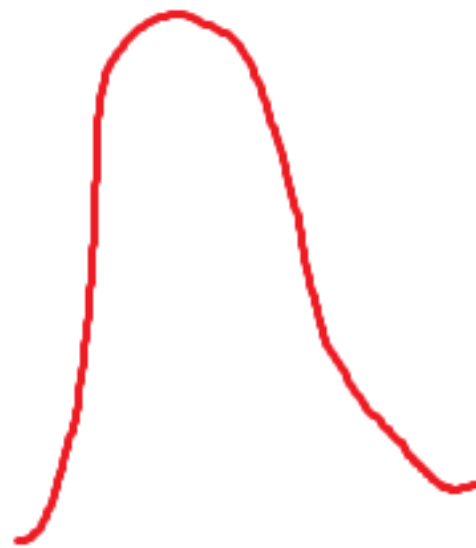
tamanho
do bico

nº de
aves



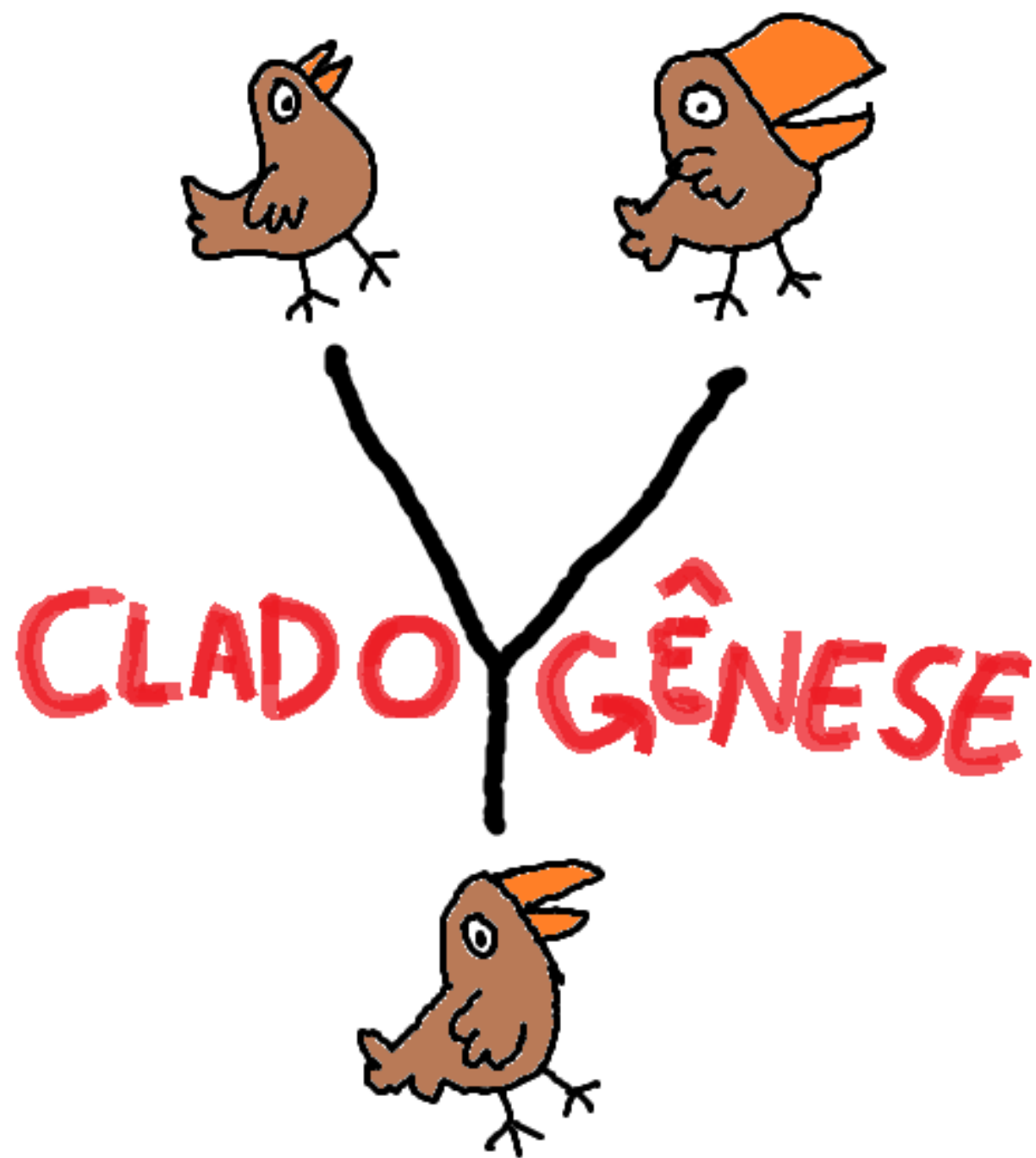
tamanho
do bico

nº de
aves



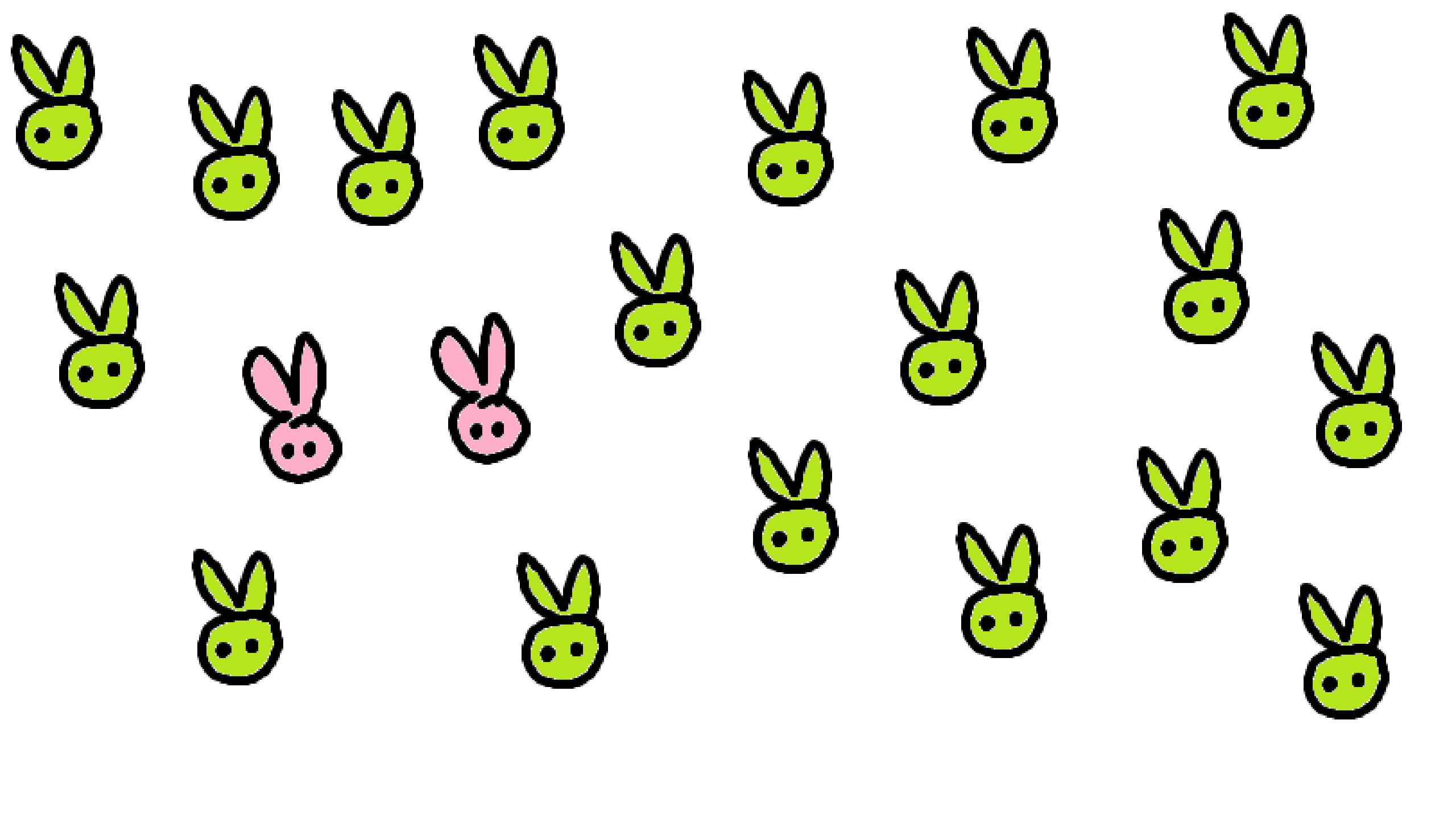
tamanho
do bico

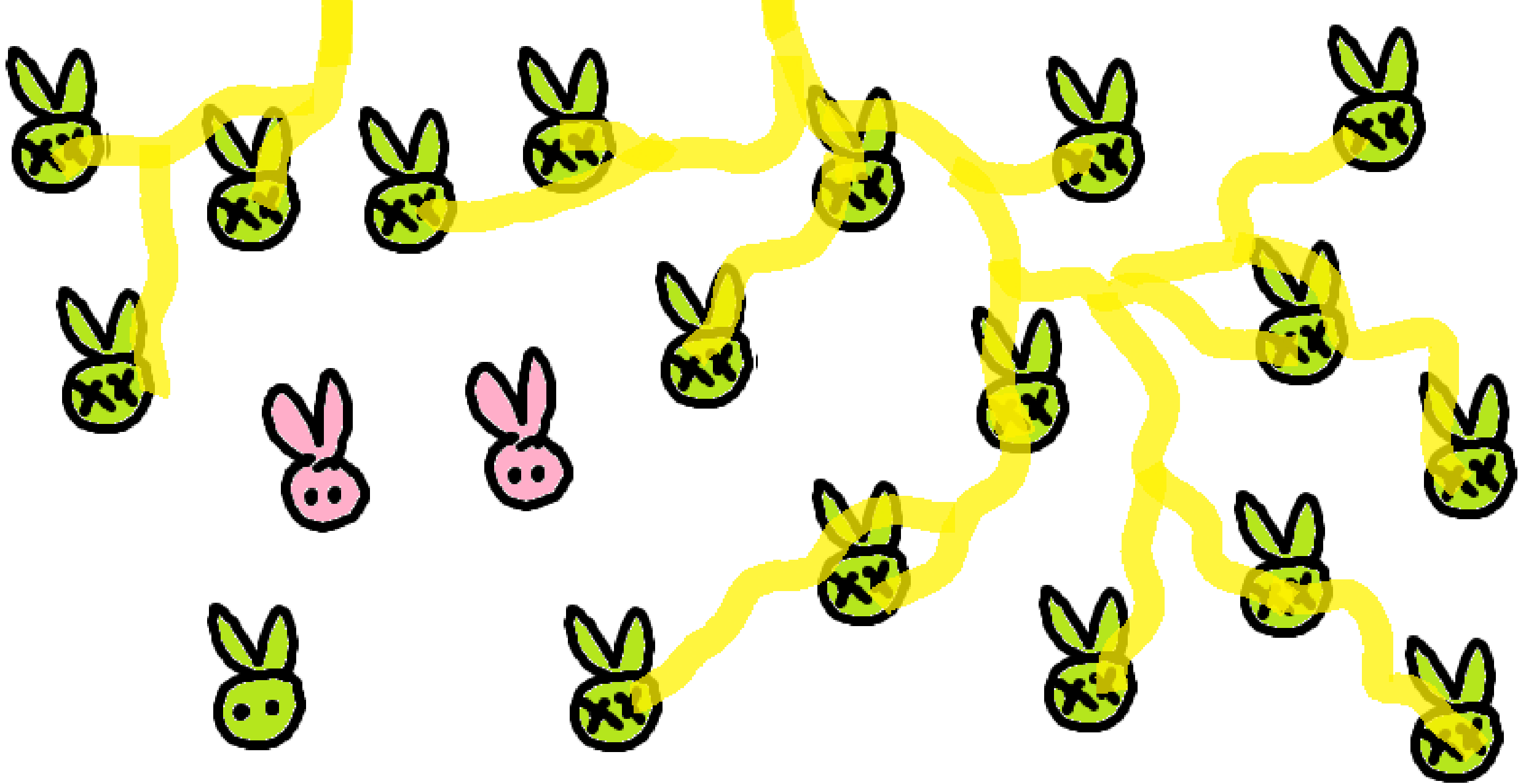




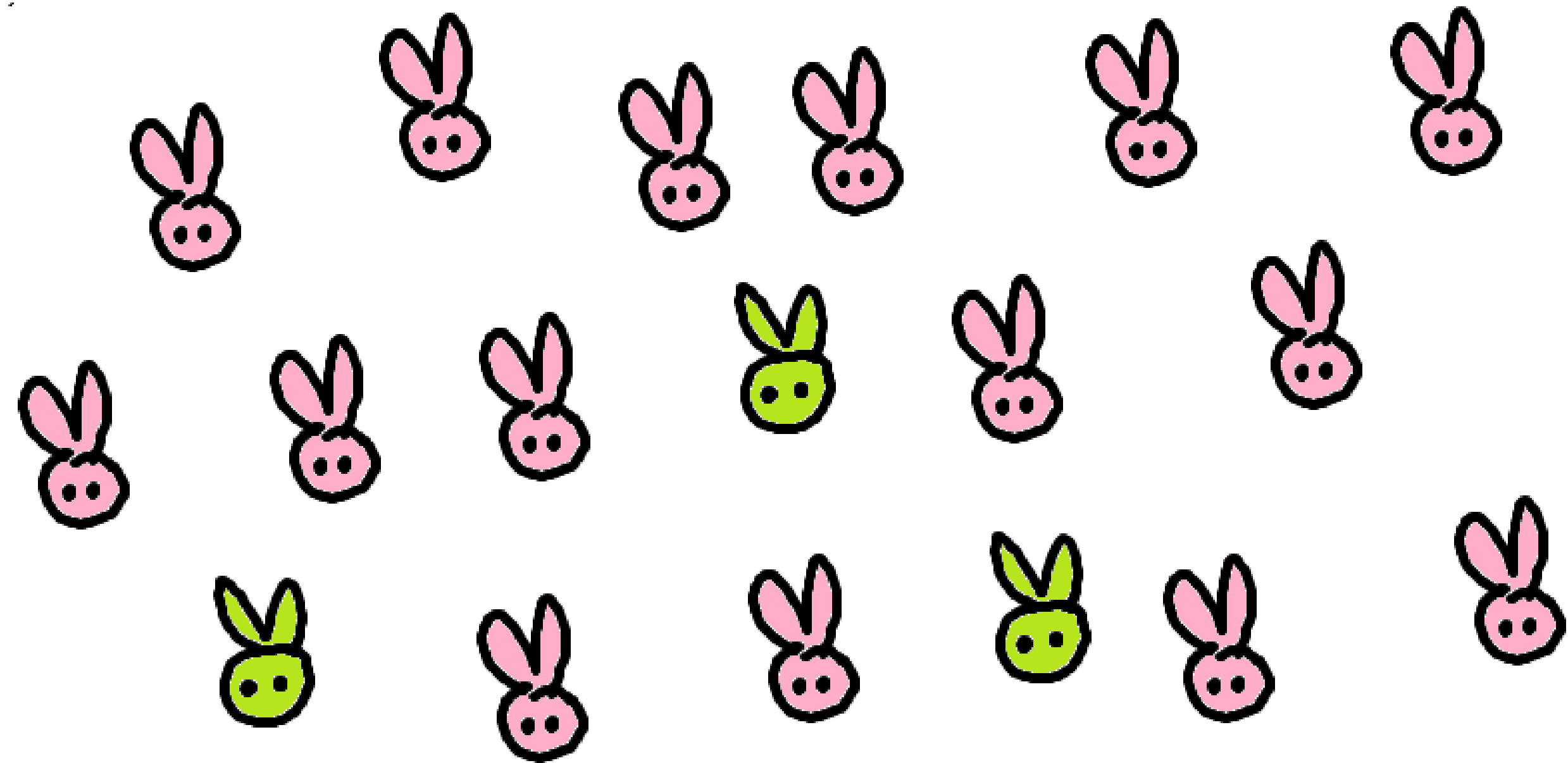
SEMPRE

Deriva genética









TAXONOMIA

organização
dos seres vivos

Uma das primeiras formas de classificação separava os seres vivos em animais e plantas

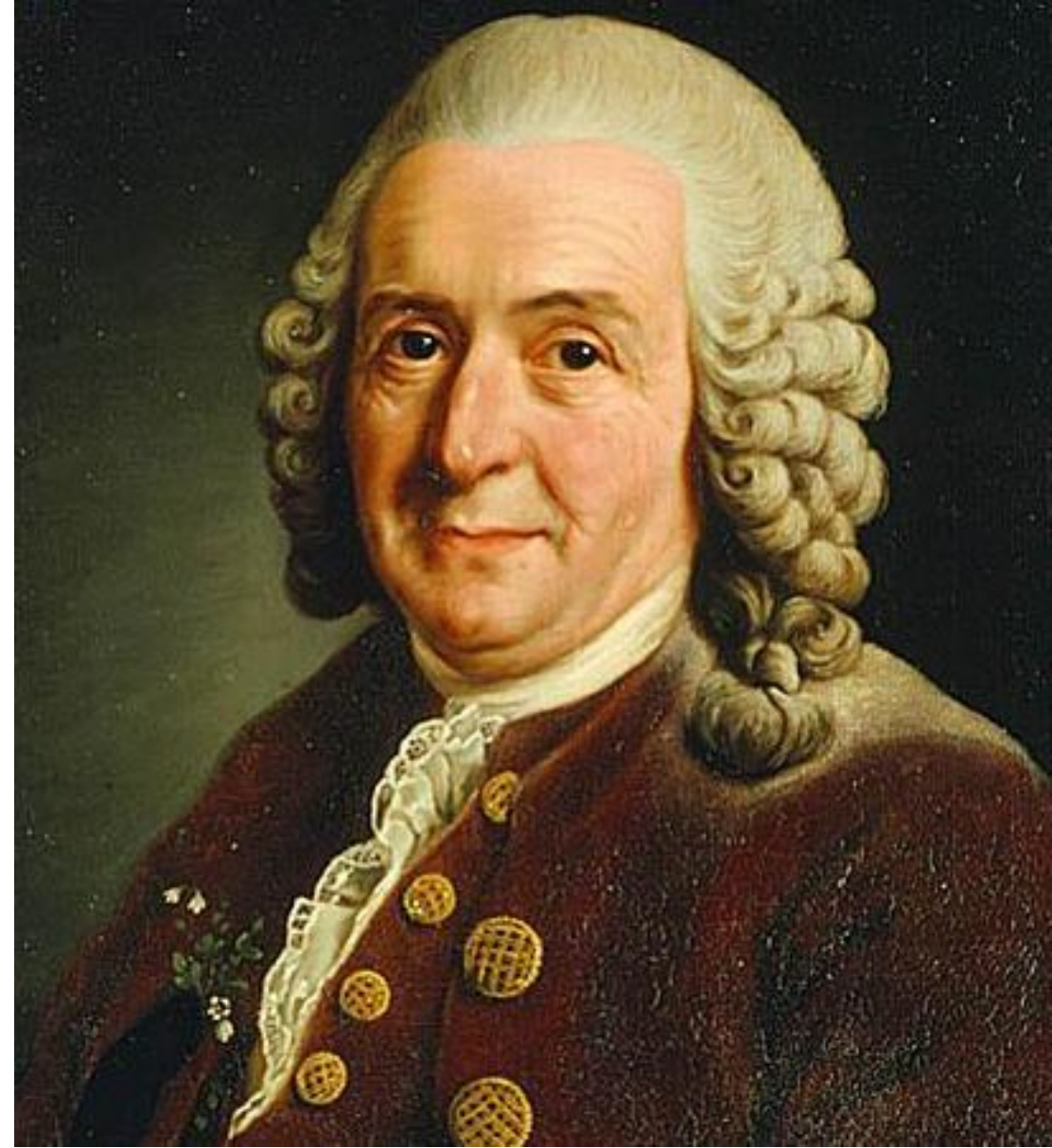




**MUITOS ORGANISMOS
NÃO SE ENCAIXAM BEM
NESSA CLASSIFICAÇÃO**

L I N E U

PAI DA TAXONOMIA



REINOS



ANIMALIA



PLANTAE

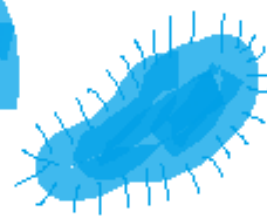
MONERA

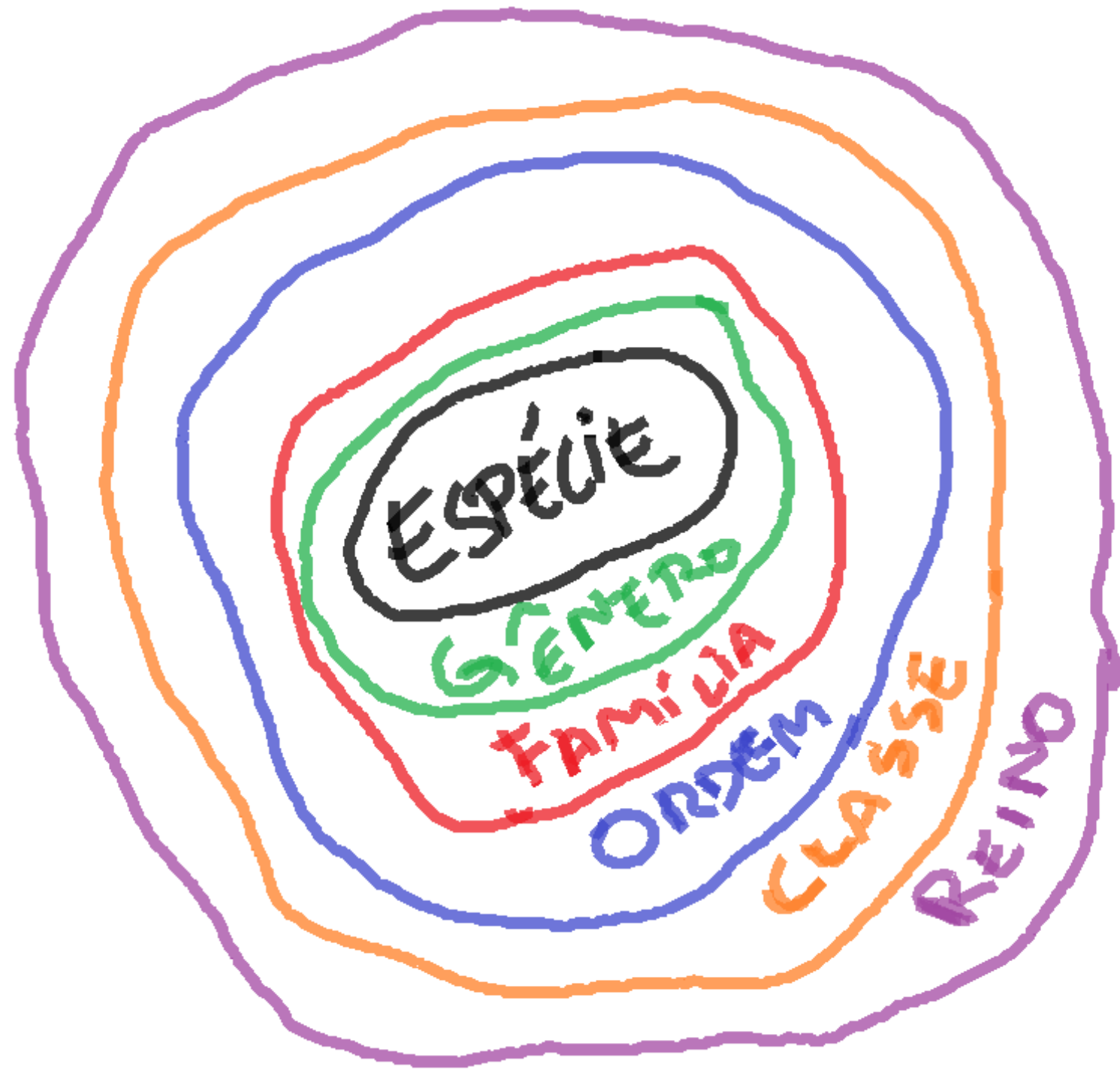


FUNGI

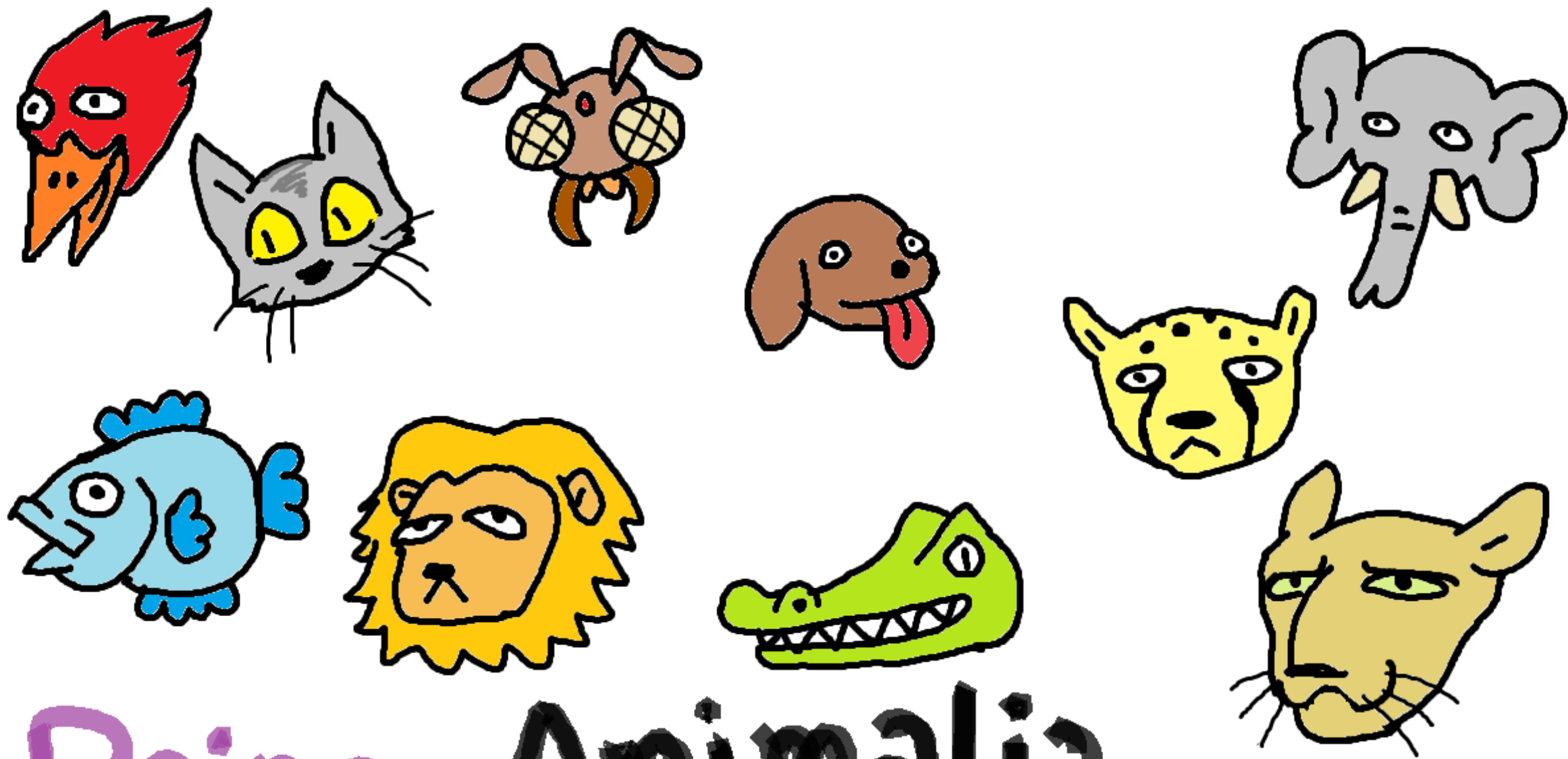


PROTISTA





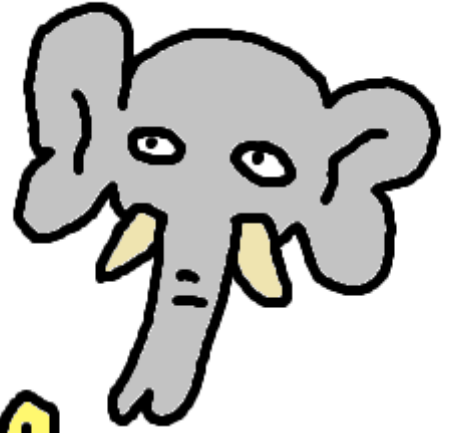




Reino Animalia



Filo Chordata



Classe Mammalia



Ordem Carnivora



Familia Felidae



Gênero Felis





Espèce



Aelis catus

LINNEU

PAI DA TAXONOMIA

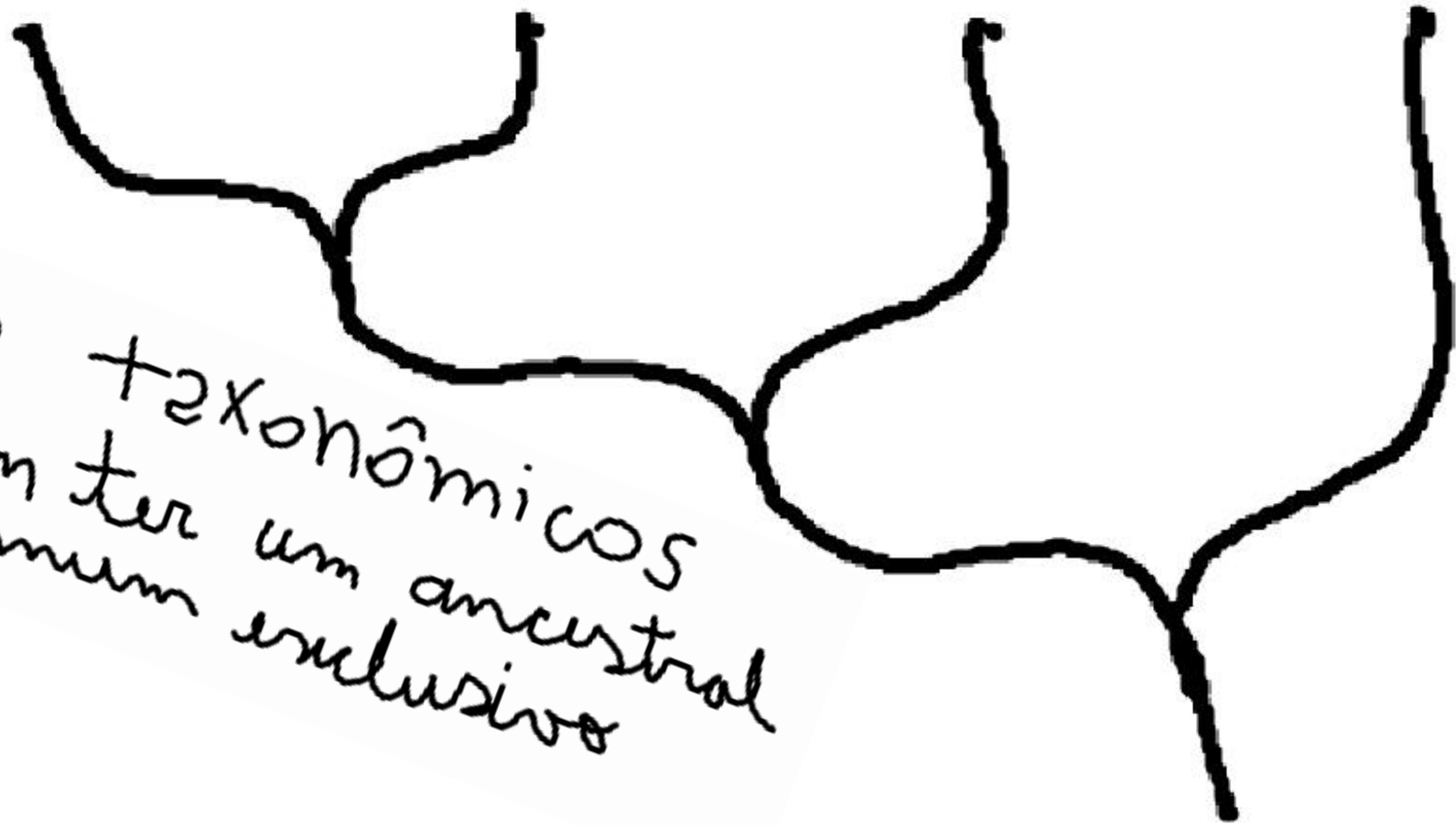
Nomenclatura
binomial

↖ Minúscula
Felis

Gênero

Minúscula
↖
Catus Sublinhado ou em itálico
↖

Complemento específico



Grupos taxonômicos
→ devem ter um ancestral
comum exclusivo

EUKARYA

ARCHEAE

BACTERIA

Atualmente os organismos podem ser organizados em 3 domínios

Zoology

Zoologia

ESTUDO DOS ANIMAIS



MAS O QUE É UM ANIMAL?



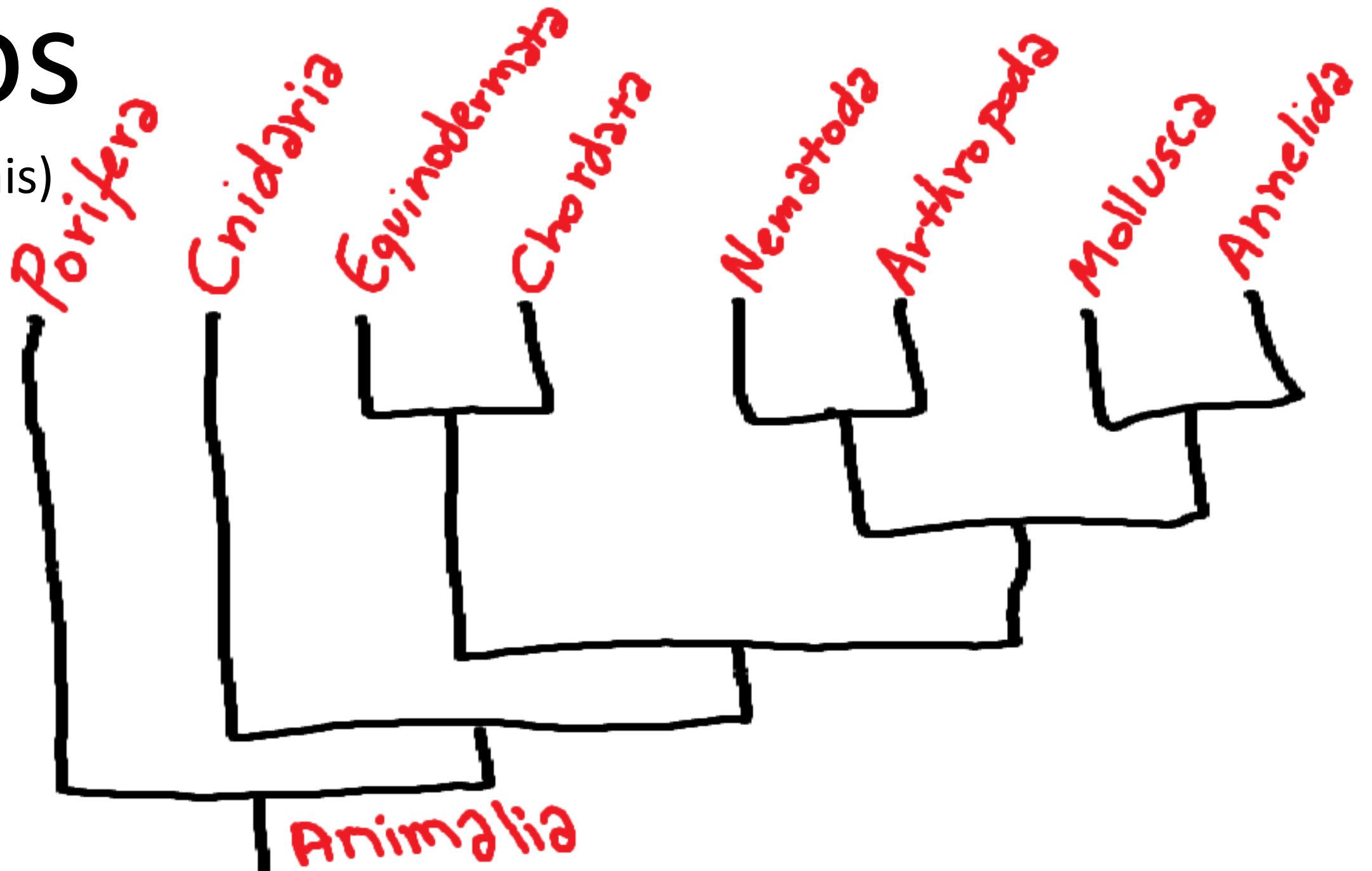
Onde tá
o
animal?

Reino Animalia

- ▶ Eucariontes
- ▶ Multicelulares
- ▶ Heterótrofos

Filos

(principais)



Filo Porifera



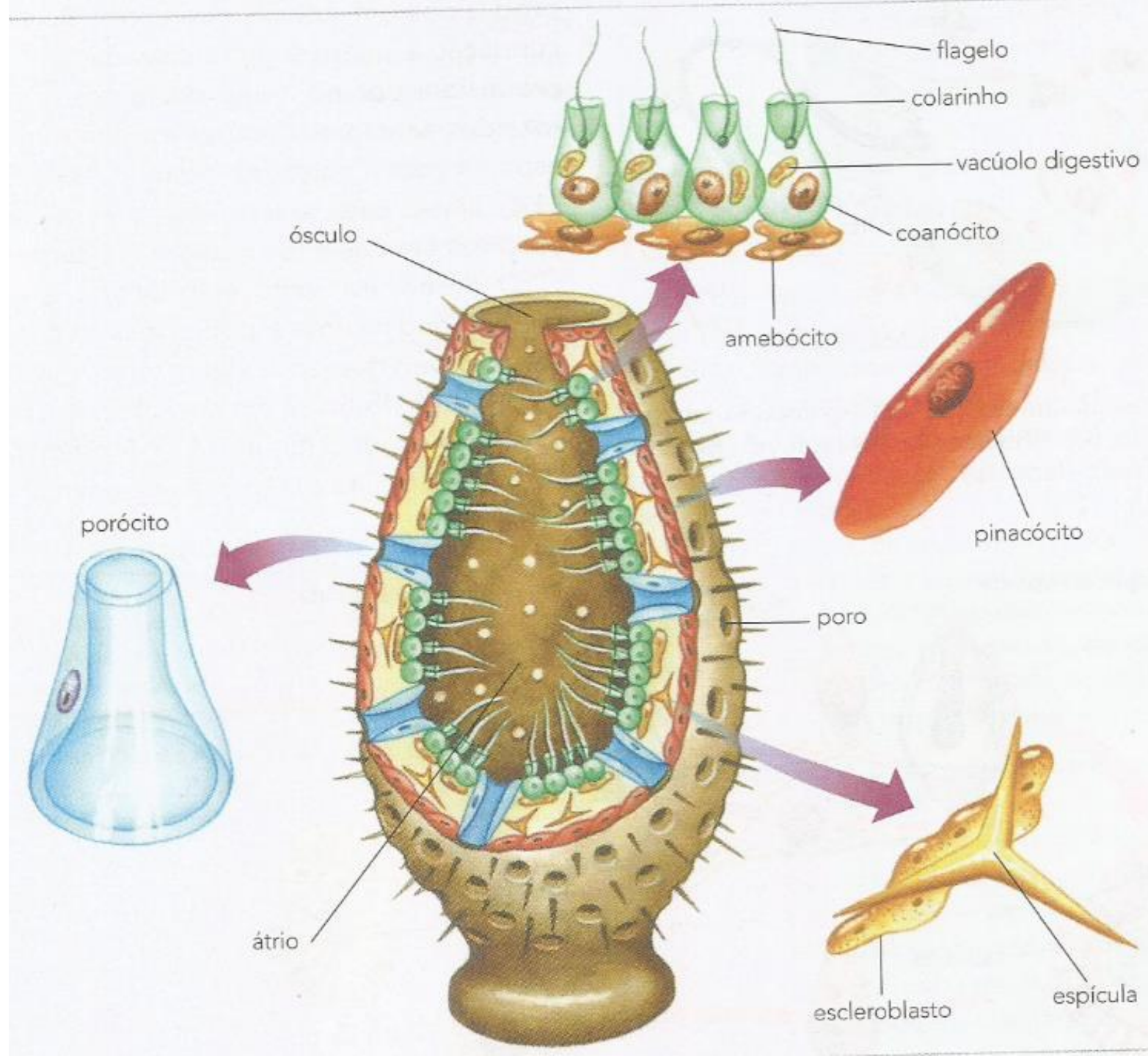
- **Séssil**
- **Filtrador**
- **Alto
potencial
regenerativo**



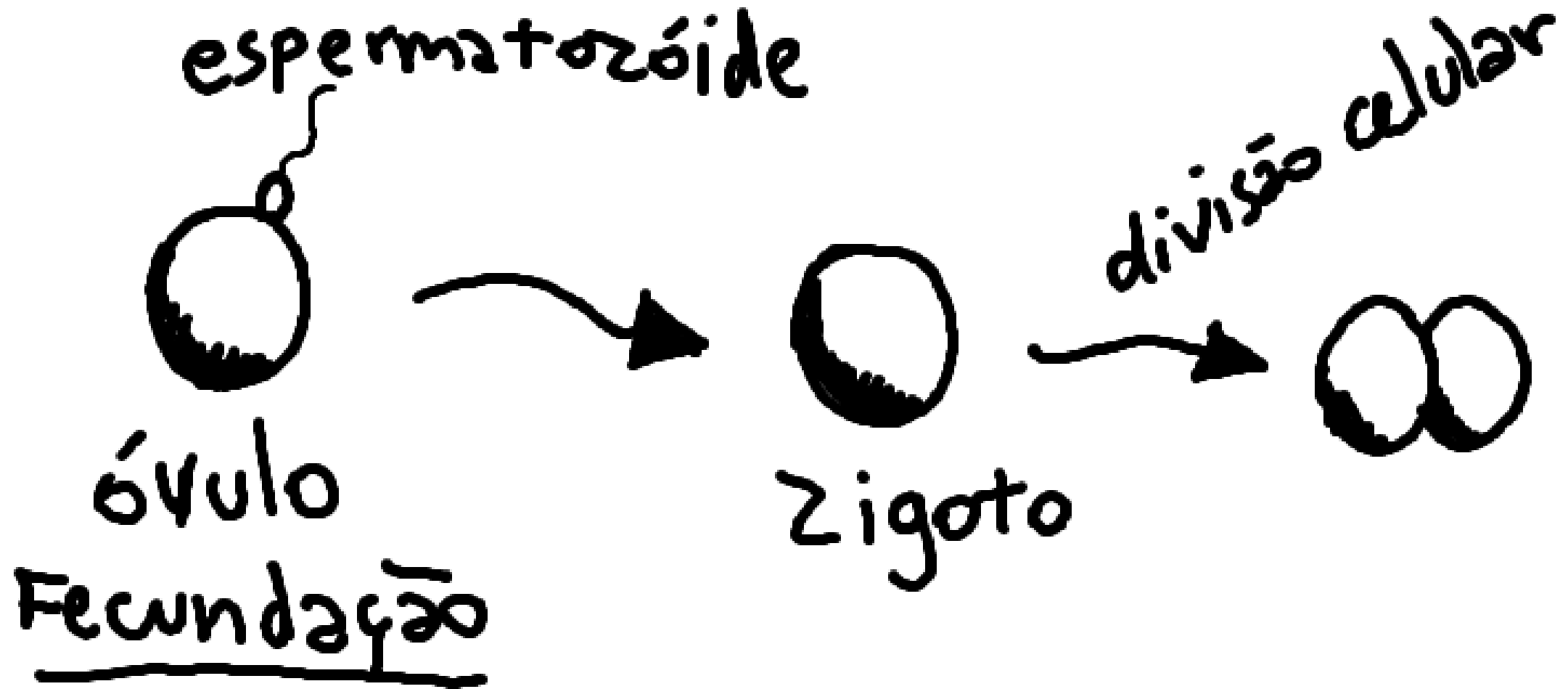
**Reprodução
sexuada:
gametas
masculinos
liberados
na água**



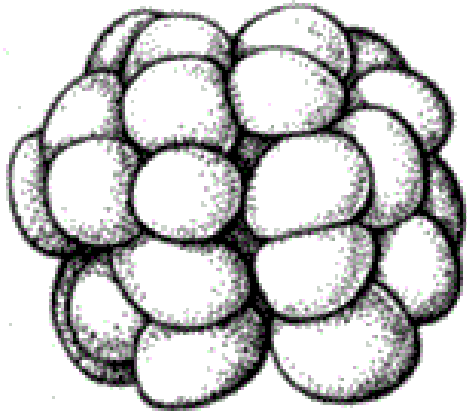
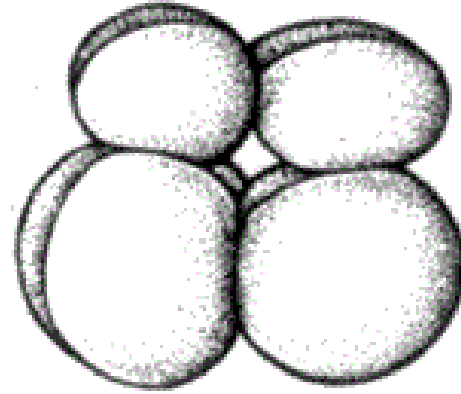
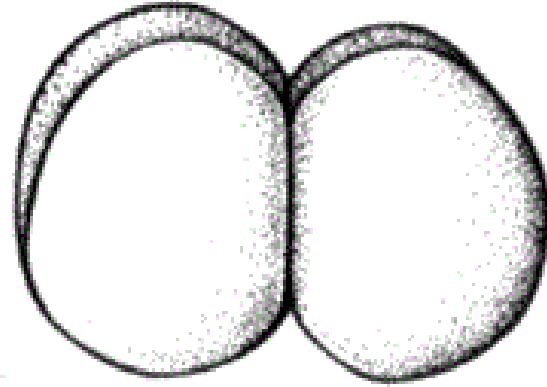
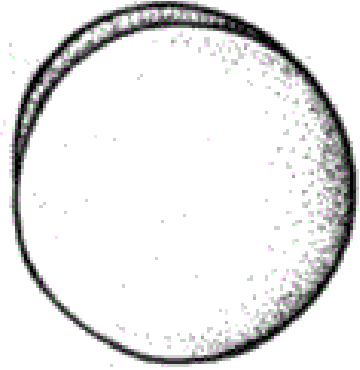
- Sem sistemas respiratório e excretor (ambos são feitos por difusão)
- Ausência de tubo digestivo (digestão intracelular)
- Sem diferenciação de tecidos



Embriologia



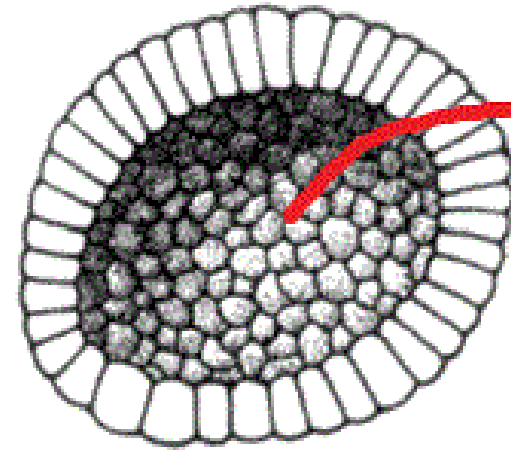
Embriologia



Mórula



Blástula (oca!)



Blastocele

O desenvolvimento
embrionário de
esponjas vai até a
fase de blástula

Nos próximos episódios...

► Zoologia

- Cnidária
- Annelida
- Mollusca
- Nematoda
- Arthropoda
- Echinodermata

Referências das imagens

- ▶ http://api.ning.com/files/wPuvme0wHfY1r45JU51j5*xGVTzm94k-OctNHN1CygDAbFslvg1AwMjt2*hQZerMMdYVUtPKWdwX6dNtTNex9WNSfjoWSo/darwin.jpg
- ▶ http://i.vimeocdn.com/video/447961579_1280x720.jpg
- ▶ <http://img.wallpaperfolder.com/f/5267F564BE00/simba-lion-king-18882-movies.jpg>
- ▶ http://www.oikosjournal.org/sites/oikosjournal.org/files/styles/adaptive/public/photo_by_richard_shucksmith.jpg?itok=JvpjpNhr
- ▶ http://4.bp.blogspot.com/-K12iGQPZXiQ/UNvNrofoAnI/AAAAAAAAAcM/HOBt_rDWNhQ/s1600/IMG_1916.JPG
- ▶ http://www.royalcanin.com.br/var/royalcanin/storage/images/breeds/dog-breeds/fci-group-9/chihuahua/breed_picture/20563101-106-por-BR/breed_picture_photothèque.png
- ▶ <http://4.bp.blogspot.com/-lumESvMMTM8/T4WANONZtII/AAAAAAAAAyY/D2ziNmLm9U8/s320/3.png>
- ▶ <https://lh4.googleusercontent.com/-vYKg2sNKi6Y/UyBI4lYptII/AAAAAAAAADcw/ej2hBttKWXQ/w400-h306-no/greyhound.png>
- ▶ <http://www.sloppykisscards.com/images/byo/breeds/dog/beard.png>
- ▶ http://image.cachorroгато.com.br/imagens/topos/topo_130_1375217533.png
- ▶ <http://cdn.foodbeast.com.s3.amazonaws.com/content/wp-content/uploads/2013/09/V8XnPeQ.jpg>
- ▶ http://img01.deviantart.net/70c2/i/2016/032/6/e/wolf_png_by_gayaliberty-d9q3xaq.png
- ▶ <http://galapagosconservation.org.uk/wp-content/uploads/2016/05/FinchTree.jpeg>
- ▶ <http://linnaeus.sourceforge.net/img/linnaeus.jpg>
- ▶ http://thetwaronitezone.com/wp-content/uploads/2016/04/gorilla-1050384_960_720.png
- ▶ <https://www.bforball.com/image/categ/chimpanzee.png>
- ▶ <http://www.digitalv8.com/wp-content/uploads/2014/08/orangutan.png>
- ▶ <http://cdn.images.express.co.uk/img/dynamic/80/590x/pug-418976.jpg>
- ▶ https://upload.wikimedia.org/wikipedia/commons/2/2e/Coral_Outcrop_Flynn_Reef.jpg
- ▶ <http://www.cartoonswallpapers.net/wallpapers/spongebob-squarepants-spongebob-widescreen-wallpaper-fb-cover.jpg>
- ▶ <https://s-media-cache-ak0.pinimg.com/736x/a1/6e/4f/a16e4fb44e350420eec9ccc0e237ffef.jpg>
- ▶ http://poriferabasics.weebly.com/uploads/2/5/0/6/25061070/1720707_orig.jpg
- ▶ <http://www.geol.umd.edu/~jmerck/honr219d/images/08/zygote.gif>
- ▶ https://www.laetusinpraesens.org/docs10s/images/invagin_files/gastrula.png
- ▶ http://2.bp.blogspot.com/-q_1bKJN6cwk/Ue8W1Gw5PqI/AAAAAAAAAOA/R2-DylXpbjQ/s1600/Altem%C3%A2ncia+de+gera%C3%A7%C3%B5es+na+Aurelia+aurita,+um+cnid%C3%A1rio+marinho.jpg
- ▶ www.animalsbase.com/wp-content/uploads/2015/08/Amazing-Jellyfish-Pic.jpg
- ▶ <http://www.ugglug.com/jellyfish.jpg>
- ▶ http://www.geocities.ws/pri_biologiaonline/cnidaria2.jpg
- ▶ <http://4.bp.blogspot.com/-xZ4EwUDRa-g/U9bwnxjFdQI/AAAAAAAAAIM/6WyrLO2MwQ/w1200-h630-p-nu/cnidocito.jpg>