Anderson Academy

BIO 140 B · Binomial Nomenclature

Extracurricular: Biology

Lecture 6: Patagonia and Buenos Aires, plus a Traveler's Field Method

Patagonia: The Far South



- **Andes** (west): lakes, glaciers, beech forests
- **Steppe** (east): dry, thorny, constant wind
- **Atlantic Coast**: penguins, whales, elephant seals

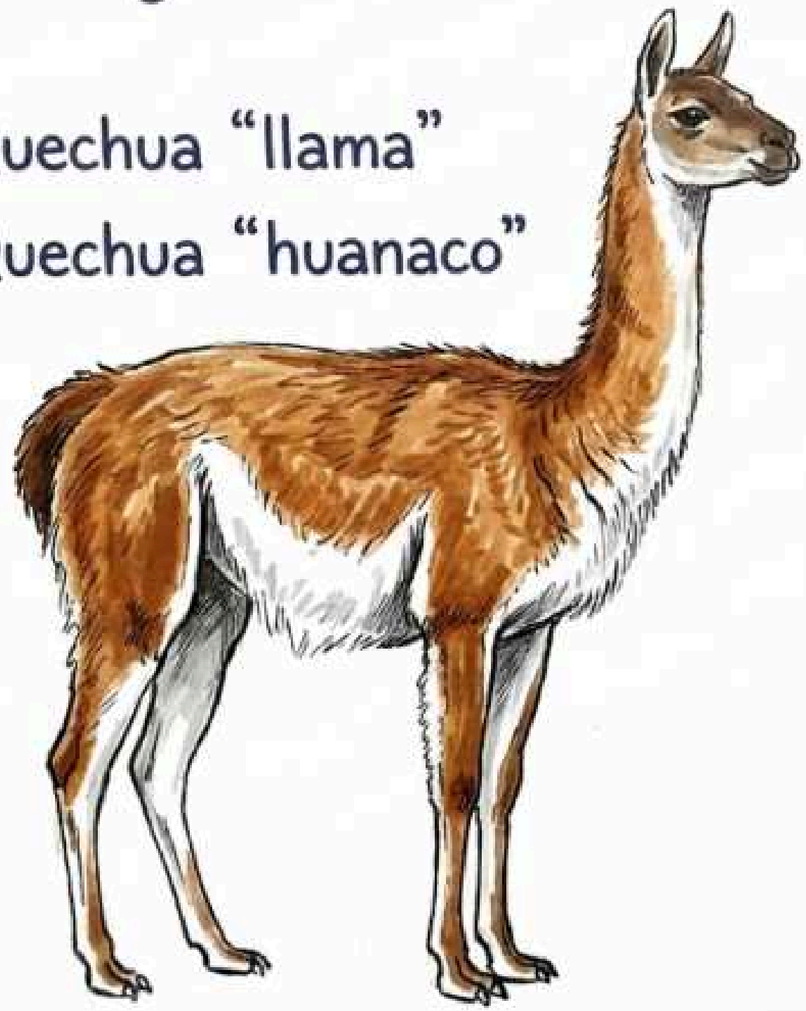
Species are few, but big and bold!

The Steppe Grazer

Lama guanicoe (Guanaco)

6.2

- *Lama* = from Quechua “llama”
- *guanicoe* = from Quechua “huanaco”



Rank disagreement:

- ITIS: distinct species
- GBIF: subspecies of llama
  Lama glama guanicoe



Andean Condor

Vultur gryphus

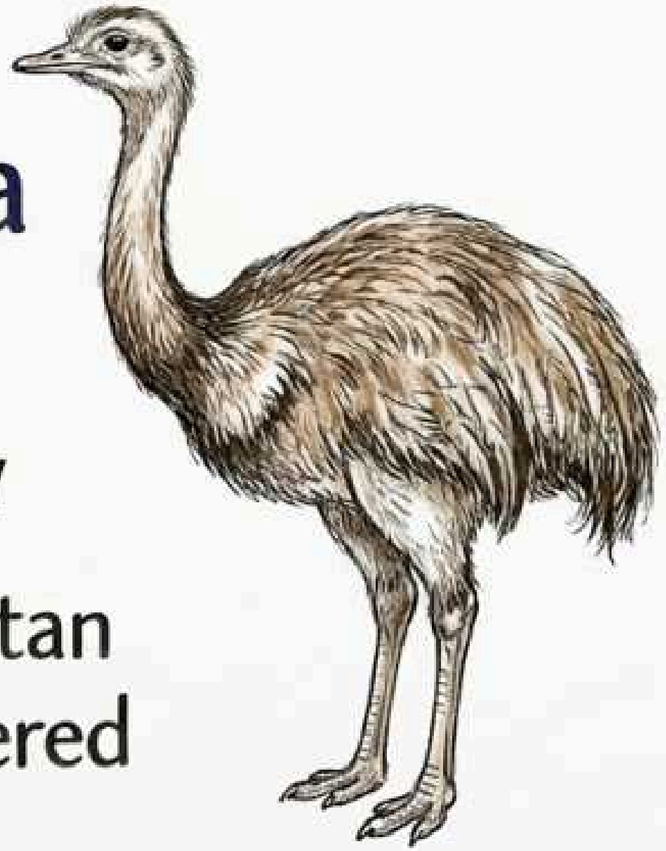
- Wingspan ~ 3 meters!
- *Vultur* = Latin for vulture
- *gryphus* = griffin (mythical lion-eagle beast)

Named by Linnaeus (1758)

Darwin's Rhea (Lesser Rhea)

Rhea pennata

- *Rhea* = Greek Titan
- *pennata* = feathered



Older books:
Pterocnemia pennata

Pampas relative:
Rhea americana
(Greater rhea)



The Coast

Spheniscus magellanicus
(Magellanic penguin)

- Spheniscus = wedge (wedge-shaped flippers)
- magellanicus = of the Strait of Magellan

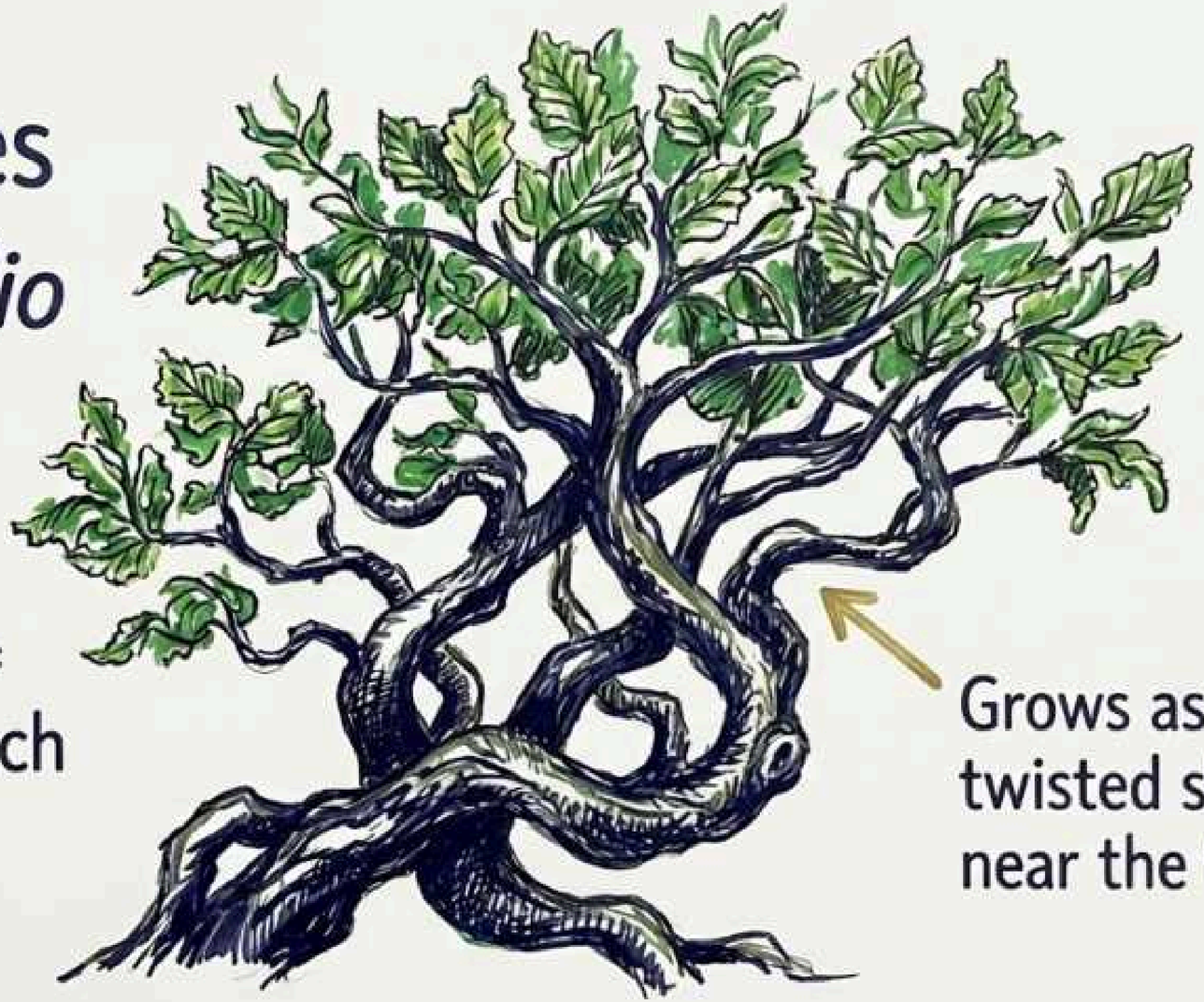
Also look for:

Eubalaena australis
(Southern right whale)

Mirounga leonina
(Southern elephant seal, 'lion-like')

Southern Beeches
Nothofagus pumilio (Lenga)

- *Notho* = false + *Fagus* = true beech → False beech
- *pumilio* = dwarf



Grows as a low, twisted shrub near the treeline.

Forest Blooms & Fungi

Cyttaria darwinii (Pan de indio)

- Orange, golf-ball fungus
- *darwinii* = honors Darwin (Beagle voyage)





Embothrium coccineum (Notro / Chilean firebush)

- *coccineum* = scarlet (tubular flowers)

Fuchsia magellanica (honors Leonhart Fuchs)



The Calafate Shrub
Berberis microphylla

- *microphylla* = small-leaved
- Spiny stems, blue-black berries (jams/ice cream)

Older synonym:
Berberis buxifolia
(box-leaved)

Authored by Georg Forster
(Cook's voyages)

Eat calafate, return to Patagonia

Andes Icons



Araucaria araucana (Monkey-puzzle tree)

- Botanical near-tautonym
- honors Arauco region / Mapuche people



Hippocamelus bisulcus (Huemul)

- *Hippo* (horse) + *camelus* (camel)
- *bisulcus* = two grooves (split hooves)

Explorers Etched in Latin

Names trace the voyages:

- magellanicus (Magellan)
- darwinii (Darwin)
- Forster (Author)



Campephilus magellanicus
(Magellanic woodpecker)

- Campe (caterpillar) + philus (lover)
- Find it by its drumming!

Buenos Aires: City Birds

Furnarius rufus

(Rufous hornero)

Argentina's National Bird!



translation bridge

Furnarius → oven-maker (Latin "furnus")

rufus → reddish

Hornero → oven-maker/baker (Spanish)

Loud & Colorful Neighbors



Myiopsitta monachus

(Monk parakeet)

- *monachus* = monk (grey cap/hood)
- Huge communal stick nests



Pitangus sulphuratus

(Great kiskadee)

- sulphuratus = sulfur-yellow
- Calls its own name: bien-te-veo

Grasses & Gardens

Vanellus chilensis
(Southern lapwing / tero)

- *chilensis* = of Chile
- Noisy, red spurs on wings



The Thrushes:

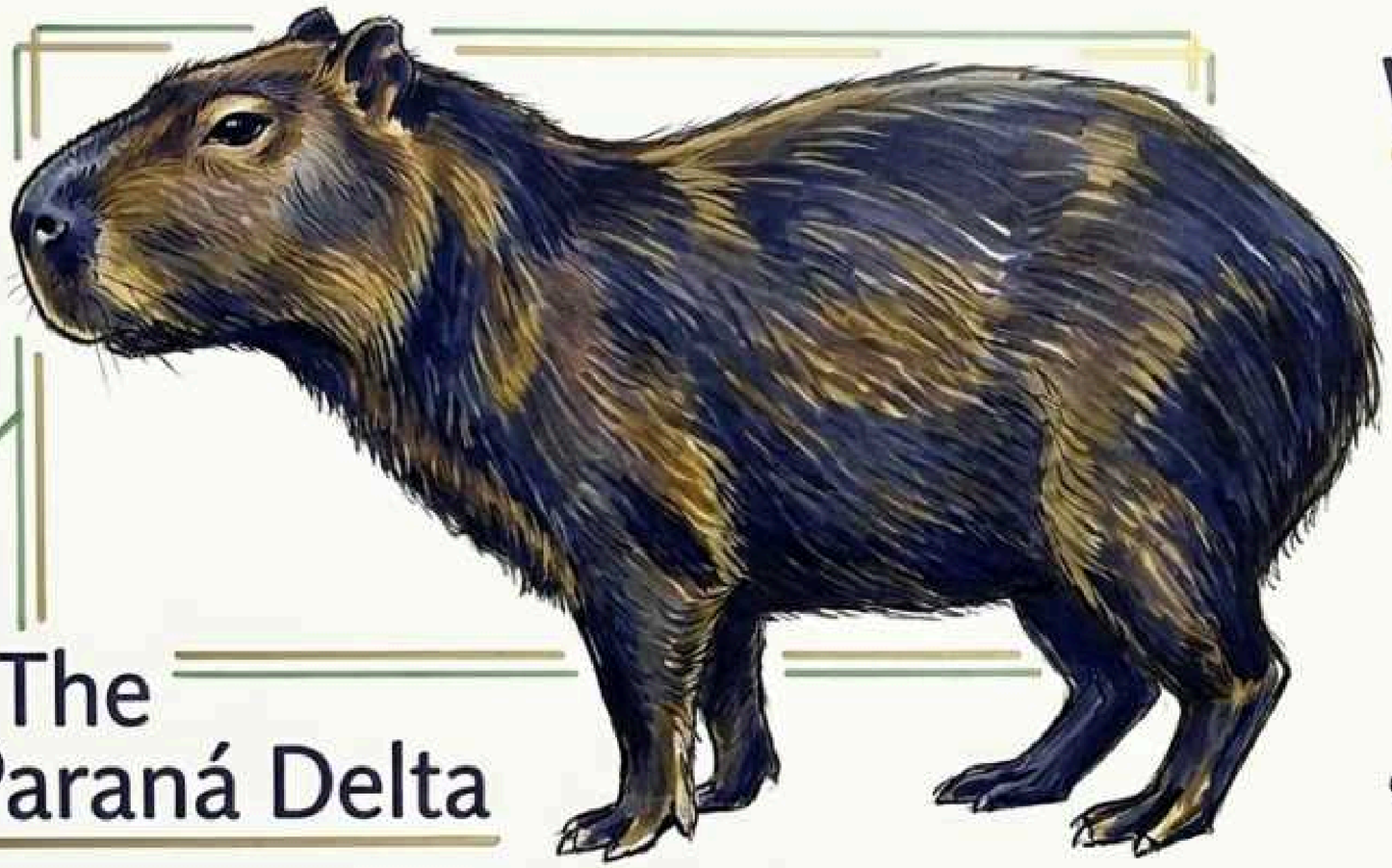


Turdus rufiventris
(Rufous-bellied thrush)

Turdus falcklandii
(Austral thrush)



Four *Turdus* thrushes on this trip!



The Paraná Delta

Hydrochoerus hydrochaeris
(Capybara)

- *Hydro* (water) + *choerus* (pig) = Water hog!
- Note the strict historical spelling quirk

Wetland neighbors:

Myocastor coypus
(Coypu / mouse-beaver)

Blastocerus dichotomus
(Marsh deer)

- *dichotomus* = forking antlers

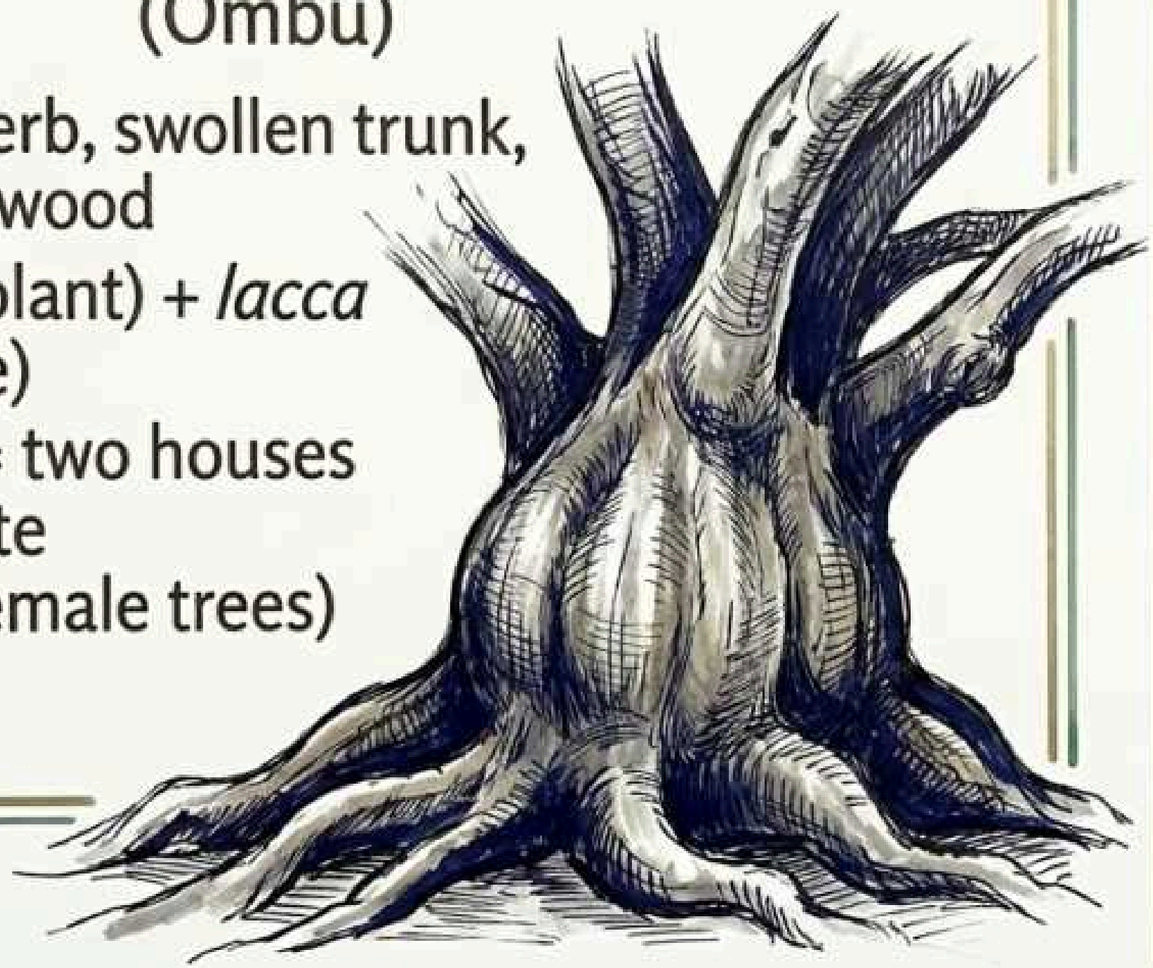


Famous Trees of the Pampas

Phytolacca dioica

(Ombú)

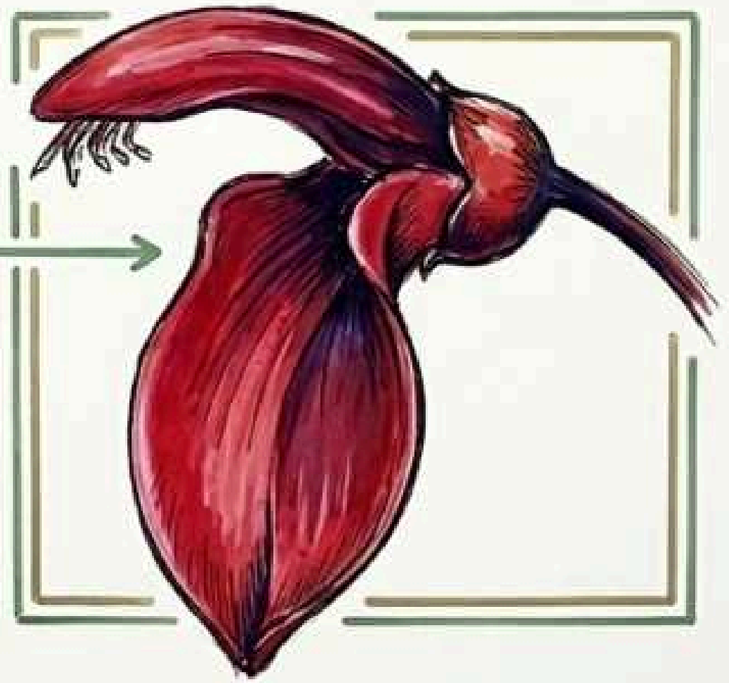
- Giant herb, swollen trunk, spongy wood
- *Phyto* (plant) + *lacca* (red dye)
- *dioica* = two houses (separate male/female trees)



Erythrina crista-galli

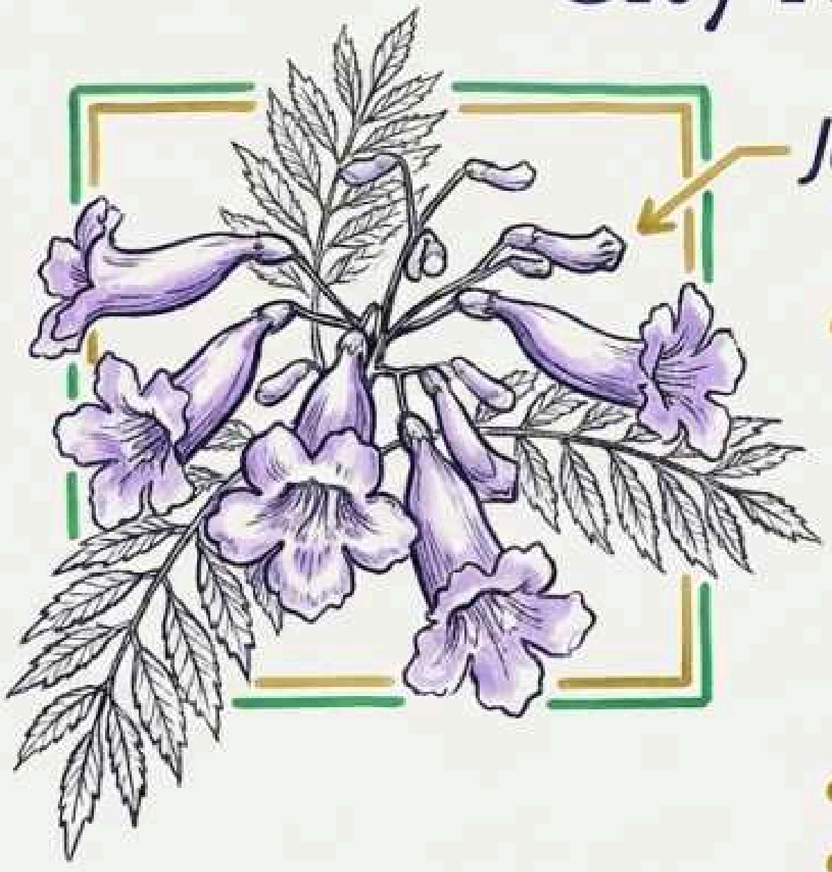
(Ceibo)

- Argentina's National Flower
- *Erythr* = red
- *crista-galli* = rooster's comb



City Avenues & Roadsides

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Jacaranda mimosifolia
(*Jacaranda*)

- Turns avenues purple in November

Cortaderia selloana
(Pampas grass)

- *cortadera* = cutter (sharp leaf edges)
- *selloana* = honors Friedrich Sellow



Ozotoceros bezoarticus
(Pampas deer)

The Web of Relatives:
Genera connect the world:

6.17



Pandion haliaetus (Osprey):
(Osprey): Florida & South America

Seattle

*Turdus
(Thrushes):

Costa Rica

*Puma concolor:
Washington to Patagonia

Erythrina:

E. crista-galli
(B.A.)

E. herbacea
(FL)

sulphuratus:

Pitangus
(B.A.)

Ramphastos
(C.R.)

B.A.

Buenos Aires

The exact web Linnaeus intended!

The Traveler's Field Method

1. **Notice:** Size, shape, color, behavior.
2. **Compare:** Is it like a heron? A beech?
3. **Look Up:** Guidebook, park sign, or app → Find binomial.
4. **Decode:** Translate genus & epithet with roots.
5. **Record:** Date, place, name in italics (Check ITIS/GBIF)

From Seattle to Patagonia, two words tell the story.