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TRAVIS AUDUBON SOCIETY

BE A BETTER BIRDER (B3)

2025

HISTORY OF BIRDING

WHERE DOES BIRDING COME FROM?

- ▶ Birding didn't start with:
 - ▶ Your field guide
 - ▶ Field guide authors
 - ▶ ABA or AOU
 - ▶ Ebird
 - ▶ CBCs
 - ▶ Roger Tory Peterson
 - ▶ John James Audubon

WHERE DOES BIRDING COME FROM?

MY RESPONSE

- ▶ Birding is an unbroken extension of history
 - ▶ The history of the study of nature (natural history)
 - ▶ From early cultures
 - ▶ Early naturalists
 - ▶ Through ornithologists, authors, conservationists,
 - ▶ To citizen scientists like you and me !!!!!
-
- ▶ Our hobby today reflects this history
 - ▶ Important (or at least interesting) to know

NARRATIVE THREADS

- ▶ Personalities (often reflected in bird names)
- ▶ Ornithology
- ▶ Field Guides
- ▶ Growth of Birding
- ▶ Texas Birding (as reflective of growth across the country)
- ▶ Connections between the above
- ▶ Birds have a human history too !!
 - ▶ Significance to Native cultures
 - ▶ Discovery by science
 - ▶ Taxonomic fortunes and misfortunes
 - ▶ Prospects for survival in a human world

SOURCES & HANDOUTS

- ▶ *History of Ornithology*, (T.R. Birkhead & I. Charmantier)
- ▶ *Of a Feather: A Brief History of American Birding*, (Scott Weidensaul)
- ▶ *Sparrows of North America* (Rick Wright)
- ▶ *Audubon's Bird of Washington* (Matthew R. Halley)
- ▶ *Wikipedia*

References &
Handouts
Will Be on my
Webpage

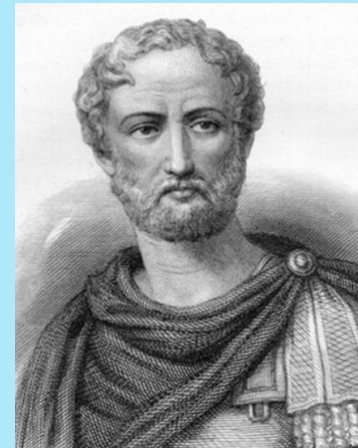
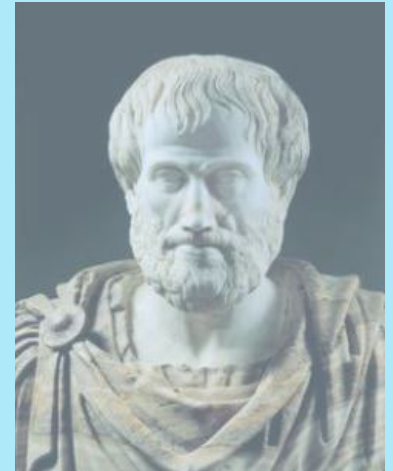
-  Birds Named After People - Copy.pdf
-  History of Field Guides - Copy.pdf
-  Naturalist Handout - Copy.pdf
-  Naturalist Timeline - Copy.pdf

-  Bailey Meeting Spring Half Way - Copy.pdf
-  Bird of Washington - Copy.pdf
-  Birds named after People - Copy.pdf
-  Conant on Couch 1853 - Copy.pdf
-  Hemenway and Hall - Copy.pdf
-  History of Ornithology - Copy.pdf
-  How Certain Birds Got Their Names — Birding History _ Audubon - Copy.pdf
-  John James Audubon Smithsonian Magazine - Copy.pdf
-  Myth of John James Audubon - Copy.pdf
-  Peterson in Memorium - Copy.pdf
-  Stop Naming Species after Awful People - Scientific American Blog Network - Copy.pdf
-  Tallichet A Day In Texas Woods - Copy - Copy.pdf
-  Ted Parker_ the Man, the Myth and the Legend - Copy.pdf

EARLY NATURALISTS



- ▶ Folk wisdom, spirituality, folklore, native cultures
- ▶ **Aristotle** (385 BC 323 BC) – One of the founders of natural study
- ▶ *History of Animals*
 - ▶ Many insights based on accurate observation
 - ▶ Many observations on birds
 - ▶ Also errors – birds hide, rather than migrate
 - ▶ Considered authoritative into 1800s
- ▶ **Pliny the Elder** (24-79) – Published large, diverse book on a wide variety of natural history topics



MIDDLE AGES

(~476 – 1300 AD)

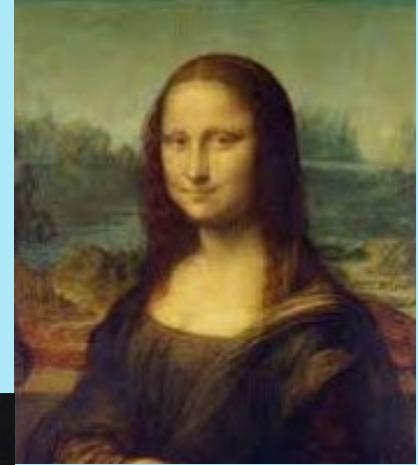
- ▶ Not much advancement for ~ 1500 years
- ▶ Several bestiaries
- ▶ Only 2 notable authors
 - ▶ **Emperor Frederick II** (1194–1250)
 - ▶ Wrote on aristocratic falconry
 - ▶ Based on his observations in falconry
 - ▶ **Albert the Great** (1200–1280)
 - ▶ Expanded on Aristotle
 - ▶ Many contributions to theology, philosophy, etc.



RENAISSANCE

(~1350-1650)

- ▶ Rediscovery of classical philosophy, literature, art
- ▶ The New World discovered
 - ▶ Many new species
- ▶ **Aristotle** rediscovered
- ▶ Finding order in chaos of natural world
- ▶ Many naturalists were physicians
- ▶ Network of correspondents throughout Europe
- ▶ Birds thought of in various logical groups:
 - ▶ Morphology – e.g. webbed feet...
 - ▶ Behavior – e.g. dust bathing...
 - ▶ Environment – e.g. coastal...
- ▶ Naturalists were able to print their works
 - ▶ Wider audience
 - ▶ Woodcuts



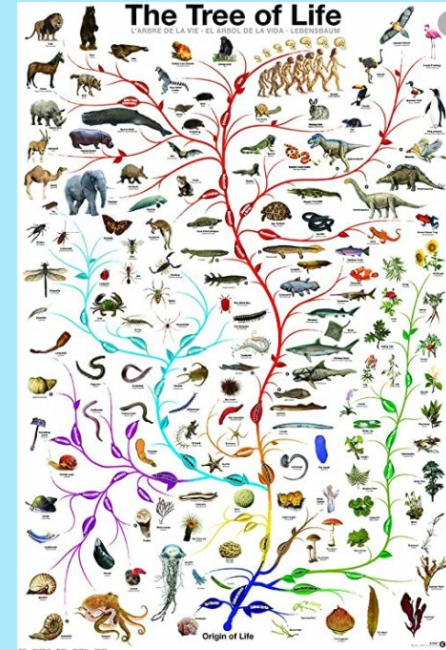
2 STRANDS OF ORNITHOLOGY

1) Systematics

- ▶ Dominated ornithology till the 1900s

▶ 2) Natural History

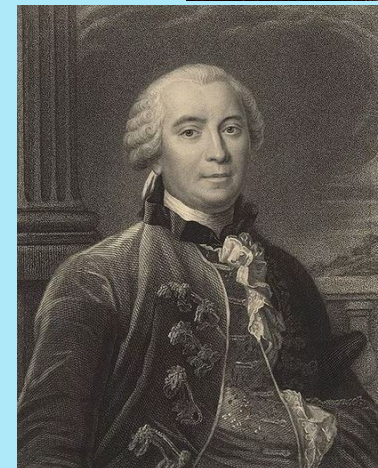
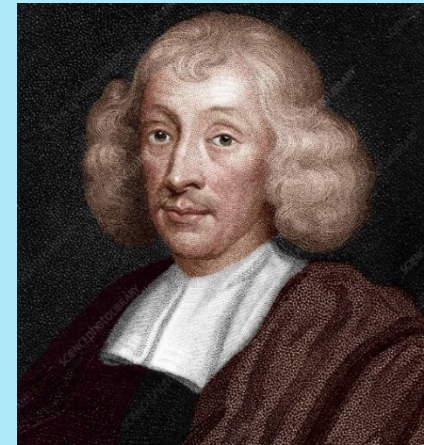
- ▶ Largely synonymous with “field observation”
- ▶ Ecology
- ▶ Habitat
- ▶ Behavior
- ▶ Adaptation
- ▶ Etc.



RENAISSANCE NATURALISTS

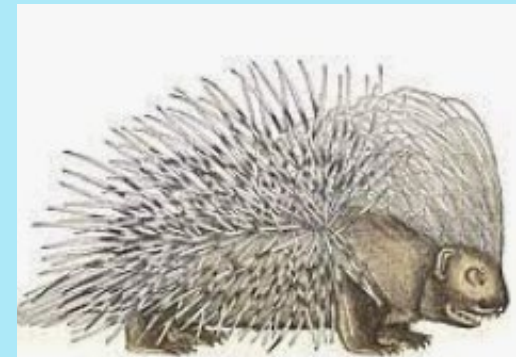


- ▶ **Conrad Gessner** (1516-1565) – Promoted observation where previous naturalists had relied on the classics
- ▶ **John Ray** (1627-1705) – Established species as basis of taxonomy
- ▶ **Georges-Louis Leclerc, Comte de Buffon** (1707-1788) – Ground-breaking *Histoire Naturelle* contained detailed descriptions of birds



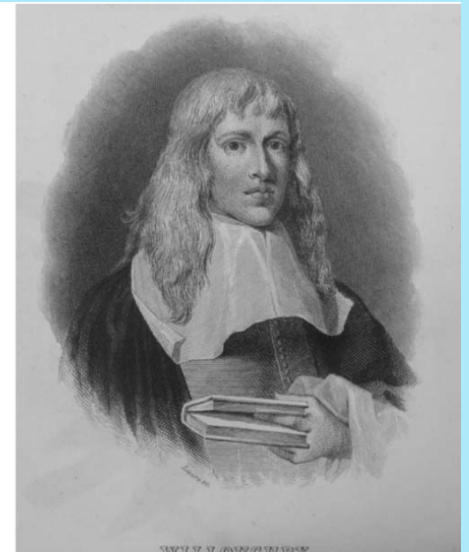
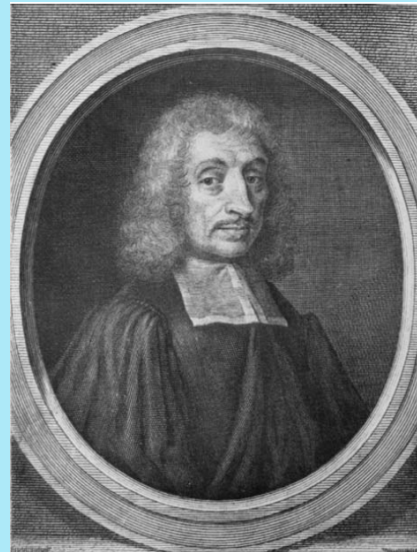
RENAISSANCE ENCYCLOPEDIAS

- ▶ Other printed encyclopedias:
 - ▶ **William Turner** (1544),
 - ▶ **Pierre Belon** (1555),
 - ▶ **Konrad Gessner** (1555)
 - ▶ **Ulysse Aldrovandi** (1599–1603),
- ▶ Attempted to include all known species
- ▶ Included woodcuts
- ▶ Reader could attempt bird ID



RENAISSANCE ENCYCLOPEDIAS

- ▶ *Ornithology* by **Francis Willughby** (1678), and **John Ray**
 - ▶ Beginning of scientific ornithology
 - ▶ Influenced by inductive reasoning of **Francis Bacon**
 - ▶ First to use “ornithology”
 - ▶ Promoted empirical observation:
 - ▶ Factual observations
 - ▶ Accurate descriptions



AVIAN NATURAL HISTORY (FIELD ORNITHOLOGY)

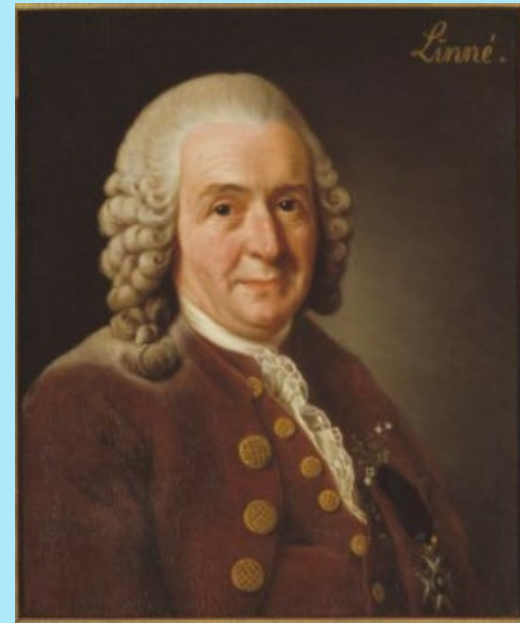
▶ 1700 – 1900

- ▶ Few proponents in ornithology
- ▶ Largely ignored
- ▶ In favor of systematics (taxonomy)
- ▶ “Reunited” with Systematics in 1920s-1940s
 - ▶ **Erwin Stresemann** (1889–1972)
 - ▶ Introduced physiology, functional morphology, ecology, behavior

CARL LINNAEUS

(CARL VON LINNE)

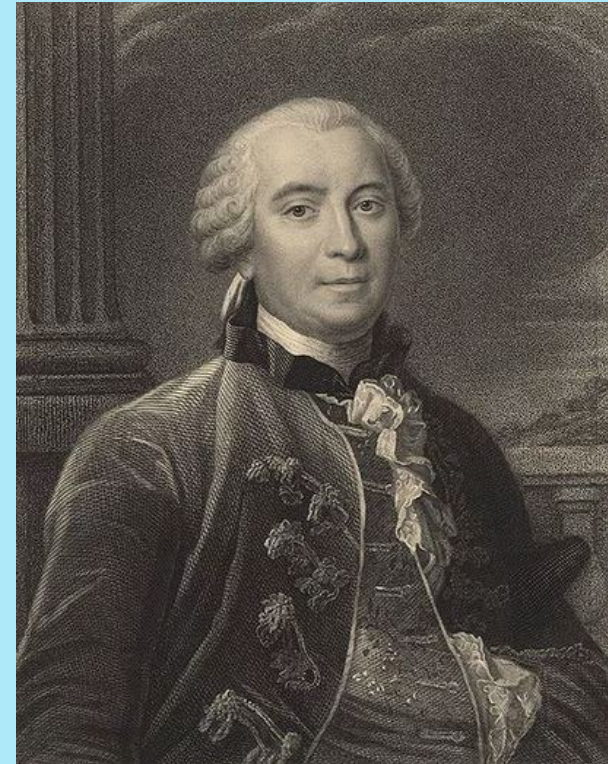
(1707 – 1778)



- ▶ “Father of modern taxonomy”
- ▶ Built on **Ray**
- ▶ Classification based on ‘the laws of nature’
- ▶ 1735 – *Systema Naturae* – Introduced genus
- ▶ 1753 – added species for plants
- ▶ 1758 – added species for birds & animals
- ▶ Simple, unambiguous naming system of **genus/species** still used today
- ▶ New species from new world

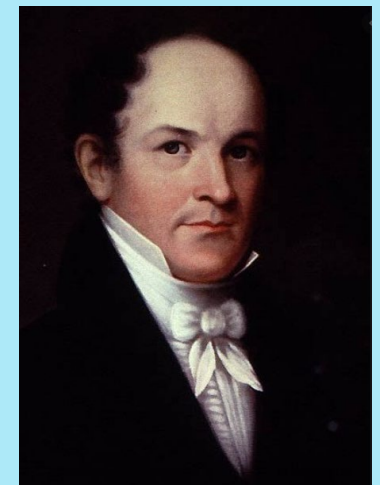
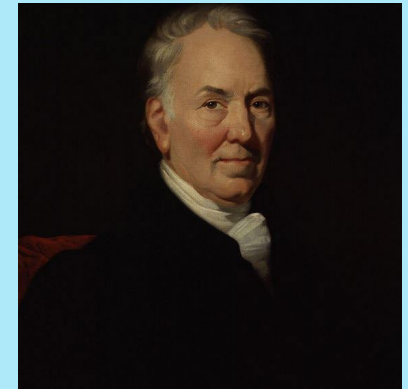
GEORGES-LOUIS LECLERC, (LATER COMTE DE BUFFON) (1707 – 1788)

- ▶ Contemporary and arch-rival of **Linnaeus**
- ▶ Did not believe in fixed, perfectly adapted species
- ▶ Species change:
 - ▶ Differences in climate, diet, Etc.
 - ▶ Diverse descendants came from original stock
- ▶ *Histoire Naturelle*
 - ▶ One of most popular books in 1700s France
 - ▶ Important in popularizing science during the Enlightenment



POPULARIZING BIRD STUDY

- ▶ **Gilbert White** (1720–1793)
 - ▶ *Natural History of Selborne* (1789)
 - ▶ Sold more copies in English (except Bible)
 - ▶ Father of field ornithology and ecology
 - ▶ Promoted field observation & ID through calls & songs
- ▶ **Thomas Bewick** (1753–1828)
 - ▶ Woodcarver & engraver
 - ▶ *History of British Birds*
 - ▶ Inspirational illustrations
 - ▶ A forerunner of all modern field guides
- ▶ **George Montagu** (1751–1815)
 - ▶ *Ornithological Dictionary* (1802 & 1813)
 - ▶ New standards of accuracy
 - ▶ Alphabetical arrangement
- ▶ **Thomas Nuttall** (1786–1859)
 - ▶ Published the first field guide for NA birds
 - ▶ Collected many plants and animals in NA

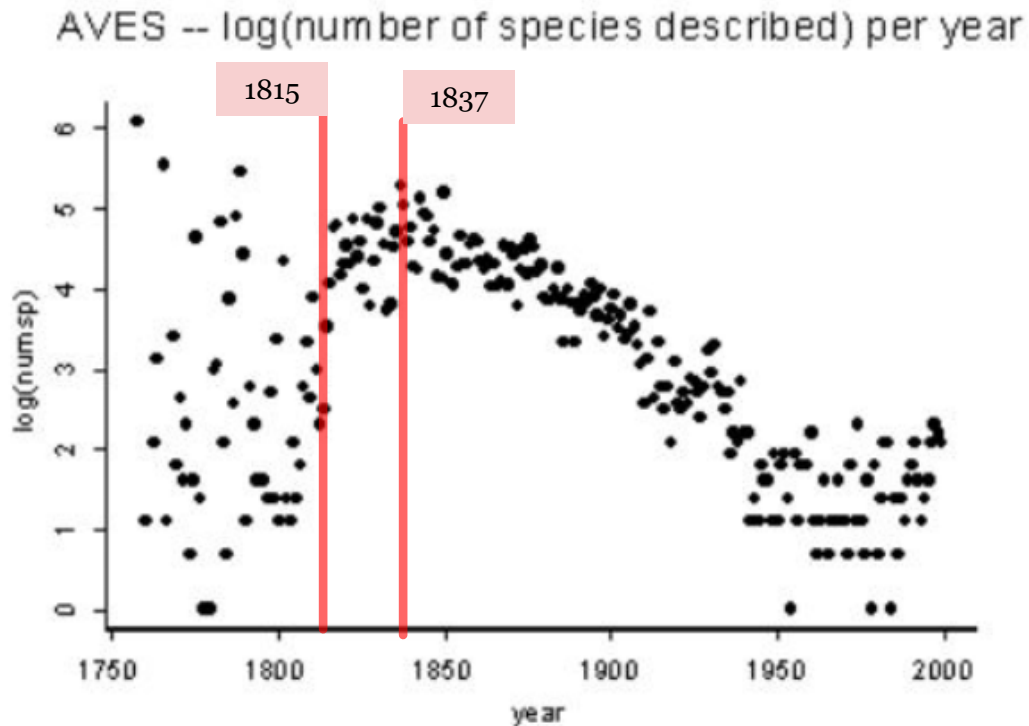


“THE FLOW BECAME A TORRENT”

- ▶ Late 1700s – early 1800s – Known species increasing
- ▶ 1815 (end of Napoleon) – “the flow became a torrent”
- ▶ Colonial expansion
- ▶ Naturalists join most expeditions
- ▶ Obsession with:
 - ▶ Specimens
 - ▶ Drawings
 - ▶ Live animals (birds in particular)
- ▶ Type specimen
- ▶ Private collections
- ▶ 1820s–1830s – start of public museums in Europe
- ▶ 1869 – American Museum of Natural History (NY)
 - ▶ Bird collections soon became internationally important

Type specimen – a specific specimen to which the scientific name is formally attached. Exemplifies the defining features of the species. Essential for identifying and characterizing new species.

HISTORICAL PATTERNS OF AVIAN TAXONOMY



Historical patterns of avian taxonomy

This plot shows the number of currently valid species described each year since 1758.

The counts are plotted as the log (natural log "ln") of the number per year, otherwise the large number of taxa described in 1758 suppresses the structure in the rest of the data.

In the initial period, there is great variability from year to year. The pattern of activity stabilizes in approximately 1815, peaks at about 1837, and then enters a steady, persistent, slightly accelerating decline. Dips in activity can be seen that occur at World War I, and World War II.

In the last fifty years the rate of new species descriptions has remained relatively constant and is perhaps increasing slightly of late. Only years with at least one description of a species currently considered valid are plotted. Surprisingly the last year there were none, was 1768.

TAXONOMY (SYSTEMATICS)

✓ **COMMON TERN** *Sterna hirundo* Linnaeus

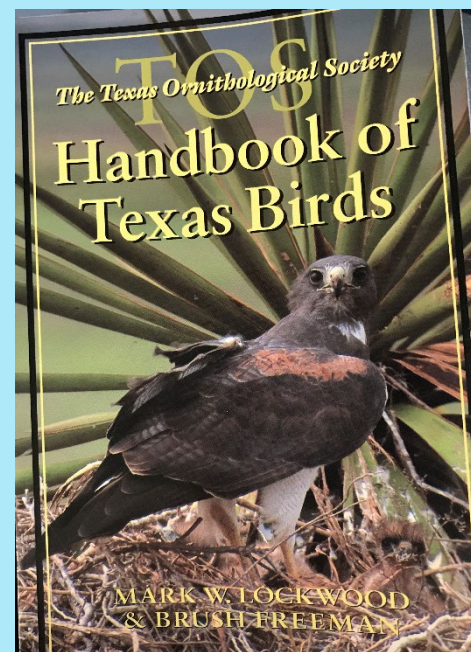
- ▶ **Carl Linnaeus** (1707 – 1778)
- ▶ **Coenraad Jacob Temminck** (1770–1858)
 - ▶ *Manuel d'Ornithologie* (1815)
 - ▶ First overview of European birds
- ▶ **Georges Cuvier** (1769–1832)
 - ▶ Internal anatomy was a taxonomic tool
- ▶ **Charles Lucien Bonaparte** (1803–1857),
 - ▶ Collected in North America
 - ▶ Acquaintance of **Audubon**
 - ▶ Built on the work of **Wilson**
 - ▶ *Conspectus generum avium* (1854)
 - ▶ Most comprehensive systematic treatment of birds
 - ▶ Extinct species were the ancestors of contemporary ones (anticipated **Darwin**)
- ▶ **Louis Pierre Vieillot** (1748-1830)
 - ▶ First scientific descriptions & Linnaean names of many NA birds
- ▶ **TH Huxley** (1825–1895)
 - ▶ First genealogical tree for birds (1868)

✓ **HOOK-BILLED KITE**

Chondrohierax uncinatus (Temminck)

✓ **SAY'S PHOEBE** *Sayornis saya* (Bonaparte)

✓ **PECTORAL SANDPIPER** *Calidris melanotos* (Vieillot)



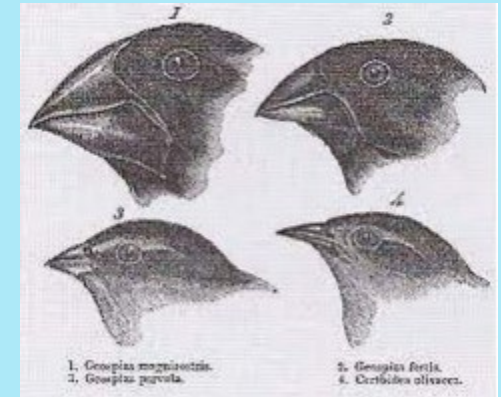
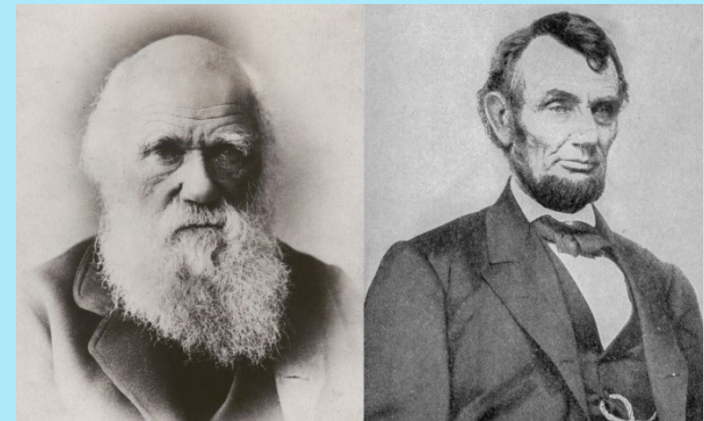
A UNIFYING THEORY FOR BIOLOGY

- ▶ Mid-1800s – no unifying theory for biology
- ▶ **Charles Darwin (1809–1882)**
 - ▶ *On the Origin of Species* (1859) – provided that unifying theory !!!!!
- ▶ **Alfred Russel Wallace (1823–1913)**
 - ▶ Independently conceived theory of evolution through natural selection
 - ▶ Jointly published some with **Darwin** (1858)
 - ▶ Prompted **Darwin** to publish *On the Origin of Species*
 - ▶ Proponent of **natural selection** throughout his life



DARWIN

- ▶ Born on the same day as **Abraham Lincoln**
- ▶ February 12, 1809
- ▶ Used birds to test his theories
- ▶ Knew or corresponded with all important ornithologists of the time
- ▶ Concepts included:
 - ▶ *Common Descent*
 - ▶ *Evolution*
 - ▶ *Natural Selection*
 - ▶ *Sexual Selection*
- ▶ Vast influence on biology (and ornithology)
 - ▶ Behavior, distribution, systematics....
- ▶ **Archaeopteryx** (1861) – dramatic evidence for common descent



SYSTEMATICS AFTER DARWIN

- ▶ After **Darwin** – systematists had a new task
 - ▶ Evolutionary relationships
 - ▶ Not just logical relationships
- ▶ But.....
- ▶ Ornithologists overlooked **convergent evolution**
 - ▶ Unrelated species can appear similar based on:
 - ▶ Similar lifestyle
 - ▶ Similar function
 - ▶ Assumed all similarities mirrored true taxonomic relationships

ORNITHOLOGICAL UNIONS

- ▶ Many formed in the 1800s
 - ▶ Society of German Ornithologists (1850)
 - ▶ British Ornithologists' Union (1858)
 - ▶ American Ornithologists' Union (1883)
 - ▶ **Elliot Coues** (1842–1899), **William Brewster** (1851–1919)
Joel A Allen (1838–1921)
 - ▶ International Ornithological Congress (Vienna 1884)
 - ▶ Royal Australasian Ornithologists' Union (1901)

MEANWHILE ACROSS THE POND

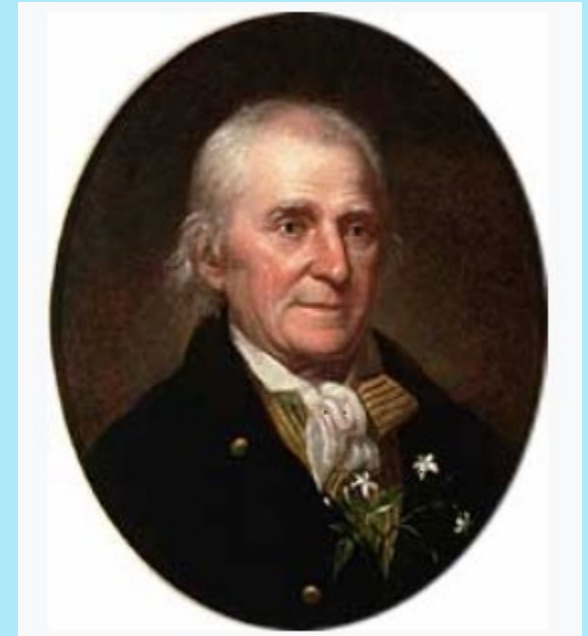
WANDERING PAINTER-NATURALISTS: MARK CATESBY

- **Mark Catesby** (1683-1749) –
- Earliest wandering painter/naturalist
- First to inventory, paint & publish on birds of NA
- Predicted plate tectonics based on similarities between NA and European birds
- Trips to NA in 1712-1719 & 1722-1726
- Collected many plants & seeds – back to England
- First a traveler to Virginia & Jamaica, later as naturalist sponsored by member of Royal Society
- *Natural History of Carolina, Florida and the Bahama Islands* -- First Published account of flora & fauna of NA

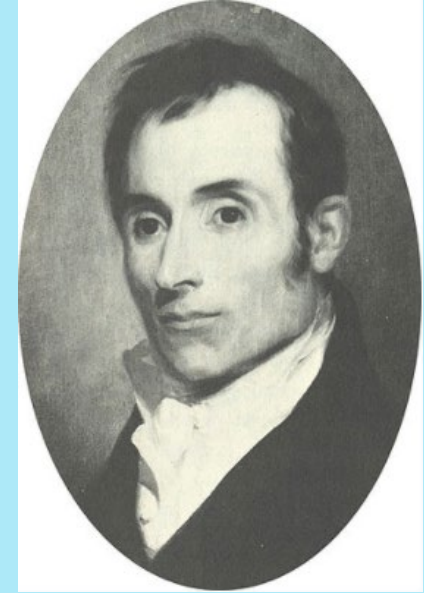


WANDERING PAINTER-NATURALISTS: **William Bartram**

- **William Bartram** (1739-1823) – Traveled widely in southeast NA (1773-1777)
- Writing and painting natural history
- One of the first ornithologists born in America
- *Bartram's Travels*
 - Acclaimed book chronicled his explorations of southeast NA
 - “The first naturalist who penetrated the dense tropical forests of Florida”
- Collected the **type specimens** of 14 species in NA
 - Used as basis for scientific descriptions by **Linnaeus**



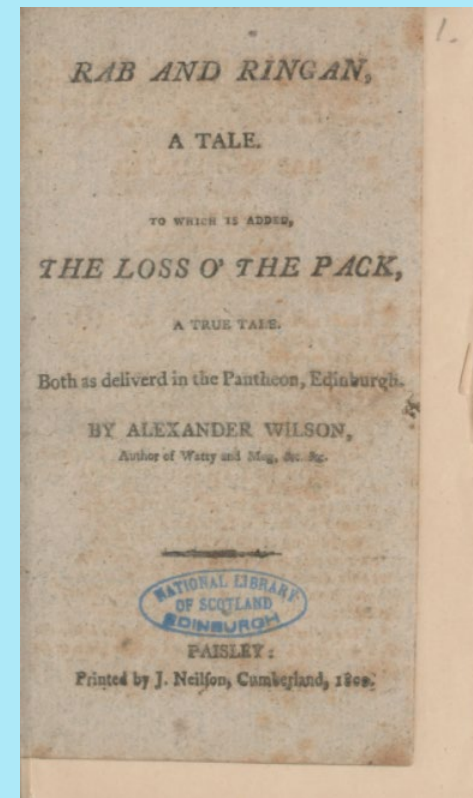
WANDERING PAINTER-NATURALISTS: **Alexander Wilson**



- **Alexander Wilson** (1766 1813)
- Father of American Ornithology
- Predecessor of **Audubon**, 30 years before
- *American Ornithology* covered 268 of 350 possible species in his area
- Also a poet
- Estimated a flock of 2.23 billion Passenger Pigeons (1806)



- Early painter/naturalists – intent on documenting existence
- Not as much on facilitating ID by others
- Presented for commercial appeal, or dramatic effect
- Not for logical relationships



WANDERING PAINTER-NATURALISTS: **John James Audubon**

- **John James Audubon** (1785-1851)
- Born in US, raised in France
- Enthusiastic naturalist from a young age
- 1803 immigrated to US (on false passport) to avoid Napoleon's wars
- Scratched out a living as painter & businessman
- Many times close to destitution
- Wife, Lucy, was the real bread-winner
- Honed his skills on many collecting and painting trips
- Age 41 went to England to publish – great success !!
- *The Birds of America* –
 - Amongst the finest ornithological works ever
 - Extensive studies & detailed illustrations
 - Pages organized for artistic effect & contrasting interest
- Identified 25 new species



THE ORNITHOLOGIST'S RULE

- ▶ **Audubon** quickly learned **the ornithologist's rule**:
- ▶ *"The nature of the place — generally gives hint as to its inhabitants."*



AUDUBON'S LEGACY

- ▶ Epic quest to document all NA birds
- ▶ Prolific output
- ▶ Ground-breaking painter
- ▶ *Birds of America*
 - ▶ Massive – 4-volumes of avian art
 - ▶ Stunning visual impact !!!
 - ▶ Famous
 - ▶ Tremendous artistic & ornithological achievement !!!
- ▶ Legacy
 - ▶ Audubon Park, Garland, Texas
 - ▶ National Audubon Society
 - ▶ Travis Audubon Society.....
 - ▶ Streets
 - ▶ Birds

AUDUBON: FRAUD & PLAGIARISM !!!!

- Audubon committed fraud & plagiarism to promote his career !!!
- He also bought, owned, and sold slaves and proudly told the story of returning escaped slaves to their owner
- **George Ord** (1781-1866)
- Zoologist who collected with & friend to **Wilson**
- Became proponent for **Wilson**
- And vocal (and belligerent) opponent of **Audubon**
- Exposed multiple examples of plagiarism by **Audubon**



AUDUBON: “BIRD OF WASHINGTON”

- ▶ **First bird** in Audubon’s great book
- ▶ Great publicity !!! – **his first new species discovered !!!**
- ▶ “..... not drawn from a specimen as he claimed, an amalgamation of 2 imaginary images (not based on specimens, as evidenced by multiple anatomical errors), copied by Audubon without attribution....
- ▶ concealed truth from readers, friends and family.”

Matthew R. Halley
Ornithologist/historian
*Audubon’s Bird of Washington:
Unravelling the Fraud that
Launched The Birds of America*
2020

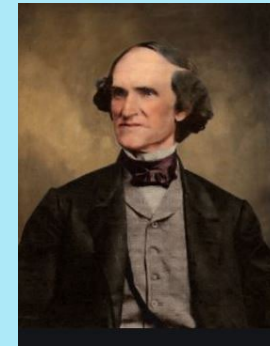
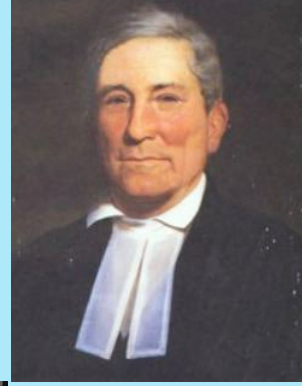


AUDUBON'S LEGACY: WHY SO STRONG & PERVERSIVE ?

- ▶ Remarkable paintings
 - ▶ Exacting detail
 - ▶ Exciting drama
- ▶ Audubon, his proponents, and descendants created an over-sized image of the man
- ▶ Lied about birthplace, parentage and artistic training
- ▶ A shameless self-promoter
- ▶ Many of his anecdotes likely fictitious
- ▶ People who came after **Audubon**:
 - ▶ Looked back with rose-colored glasses
 - ▶ Adopted him as hero
 - ▶ When a hero was needed
 - ▶ **Grinnell** taught by Audubon's wife, named first Audubon Society
- ▶ “...he left in his wake a movement of people ardent in their passion for identifying and protecting bird life...”
- ▶ Fiction still going on -- *Birdler, Painter, Troll, and Trickster—The Secret Life of John James Audubon*

AUDUBON ASSOCIATES

- ▶ **Reverend John Bachman** (1790 – 1874) – Collaborated with on *Viviparous Quadrupeds of North America*. Writings influential for **Darwin**.
 - ▶ **Bachman's** 2 daughters married **Audubon's** 2 sons
- ▶ **Ed Harris** (1799-1863) – On 2 expeditions: Gulf of Mexico & Missouri river
- ▶ **Isaac Sprague** (1811-1895) – On Missouri river expedition.
- ▶ **John Bell** (1812-1899) – On Missouri river expedition
 - ▶ Saved **Audubon's** life by shooting a charging buffalo
 - ▶ Taught taxidermy to **Teddy Roosevelt**



Lewis & Clark (1804-1806)



EXPEDITIONS WEST

Pike expedition (1806-1807)

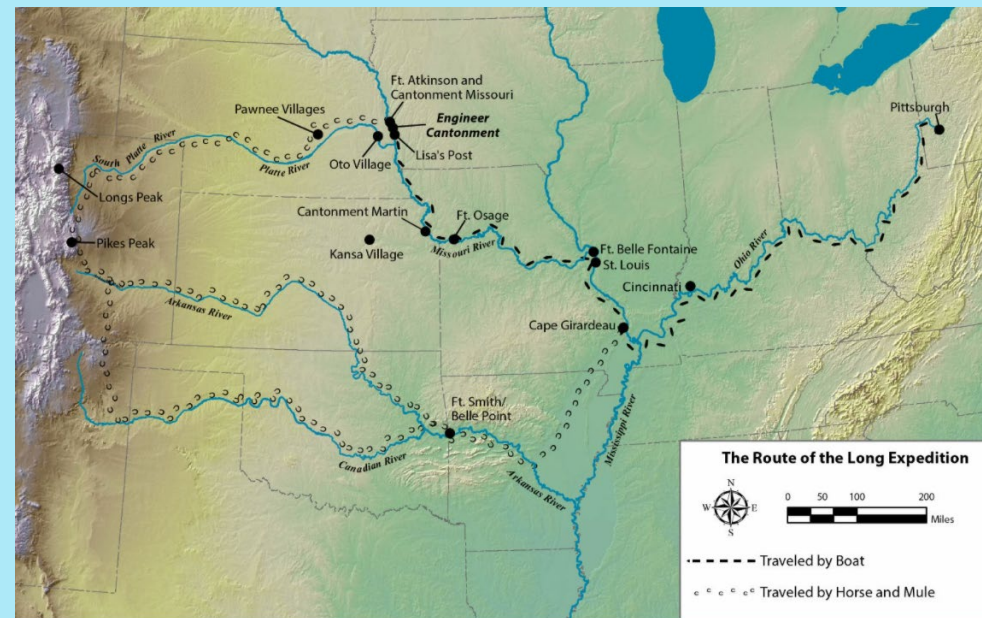
Stephen Long Expedition
(1819-1820)

Thomas Say – naturalist

Wythe Expedition (1834) – Oregon

Thomas Nuttall &

John Kirk Townsend – naturalists



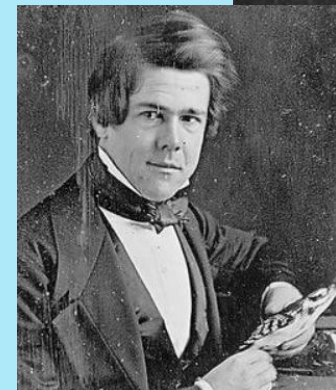
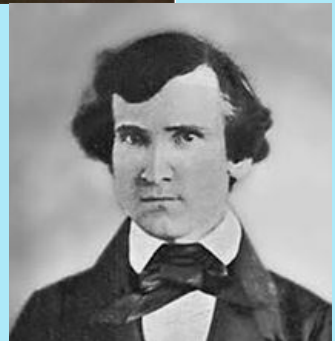
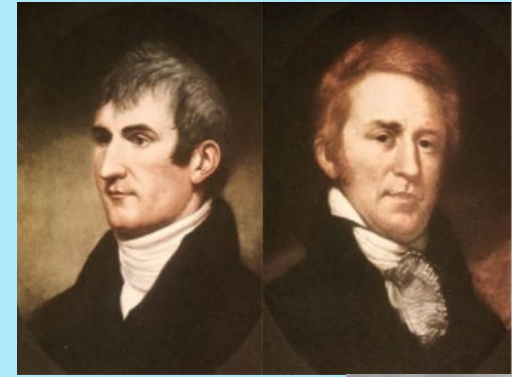
PROGRESS BY 1825-1830

- ▶ Much of the preliminary inventory of NA birds complete
- ▶ Discoveries still to be made west & southwest
- ▶ Thanks to taxonomists
 - ▶ Wild divergence of nomenclature settled
 - ▶ Most authorities agreed on higher-level relationships

SHOTGUN ORNITHOLOGY: EXPLORERS

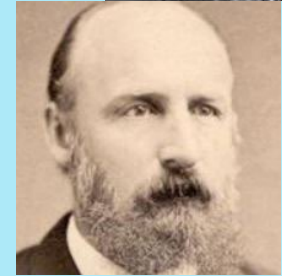


- ▶ **Thomas Say (1787-1834)** –
 - ▶ Entomologist, conchologist, and herpetologist
 - ▶ First descriptions of many birds
 - ▶ **Long Expedition** of 1819-1820
- ▶ **Lewis & Clark (1804-1806)** –
 - ▶ **Jefferson** sent to explore the west
 - ▶ Described 62 bird species and discovered 5
- ▶ **John Kirk Townsend (1809-1851)** –
 - ▶ Ornithologist on **Wyeth Expedition** to Oregon in 1834
 - ▶ Collected 74 of the 508 species discussed by Audubon
- ▶ **Samuel W. Woodhouse (1821-1904)** –
 - ▶ American surgeon, explorer and naturalist
 - ▶ Doctor/naturalist on **Sitgreaves Expedition** – San Antonio to San Diego.



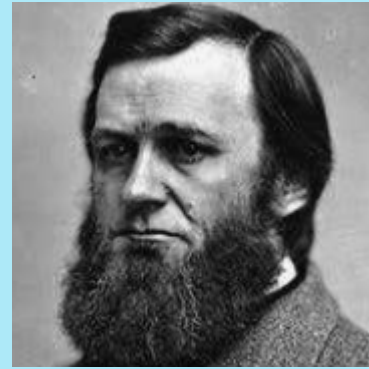
SHOTGUN ORNITHOLOGY: FIELD NATURALISTS & COLLECTORS

- ▶ Many sent out by **Baird** to collect specimens & send back descriptions
- ▶ **Adolphus Heerman** (1821-1865) – Doctor, naturalist, ornithologist, explorer. Extensive travel collecting & cataloging
- ▶ **William Gambel** (1823-1849) – Naturalist, ornithologist, and botanist. Collected with **Nuttall** and on his own.
- ▶ **John Xantus** (1825-1894) – Hungarian exile & zoologist collected & named many species in SW & Mexico.
- ▶ **William Hammond** (1828-1900) – Military physician collected specimens for **Baird**.
- ▶ **Charles Bendire** (1836-1897) – US Army ornithologist & oologist.
 - ▶ His collection of 8,000 eggs became the collection of the Smithsonian.
 - ▶ Chased by native Americans, he kept his gathered eggs intact



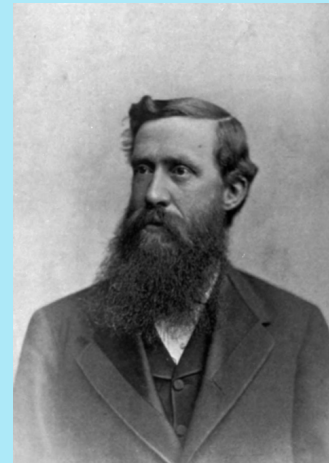
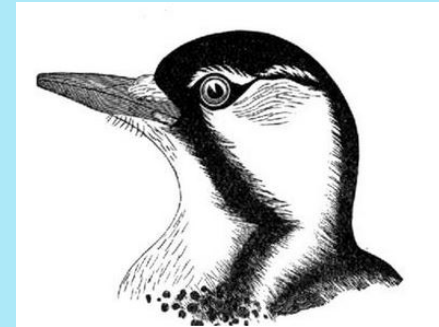
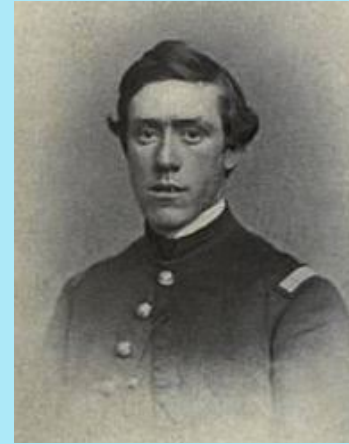
GIANTS OF AMERICAN ORNITHOLOGY

- ▶ **Spencer Fullerton Baird**
(1823-1887) –
- ▶ First curator at Smithsonian
- ▶ Later Secretary of Smithsonian
- ▶ Greatly expanding natural history collections
- ▶ Audubon tried to add him to expedition
- ▶ Held back by relatives “weak heart”
- ▶ Baird’s Sparrow last named by **Audubon**
- ▶ Sent out military collectors over many years



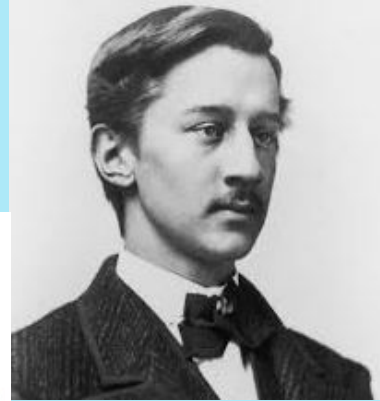
GIANTS OF AMERICAN ORNITHOLOGY

- ▶ **Elliot Coues** (1842-1899) –
- ▶ Army surgeon, historian, ornithologist, and author
- ▶ Most important ornithologist from army medical corp
- ▶ Collected for **Baird**
- ▶ Wrote voluminously
- ▶ Very immodest
- ▶ Disdain for “opera glass fiends”
- ▶ Birders were “inspired idiots”
- ▶ Published *Key to North American Birds* (1872)
- ▶ Helped promote the systematic study of ornithology in America
- ▶ An AOU founder



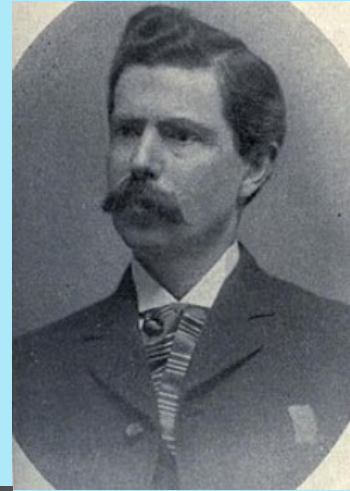
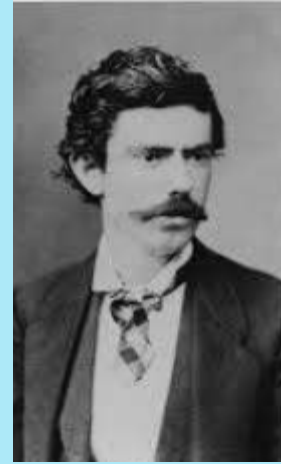
GIANTS OF AMERICAN ORNITHOLOGY

- ▶ **George Bird Grinnell** (1849-1938)
- ▶ Anthropologist, historian, naturalist, and author
- ▶ Attended **Lucy Audubon's** school
- ▶ Original founder of the Audubon Society
- ▶ Friend of **Lucy Audubon's**
 - ▶ She sparked his love of birds
- ▶ Naturalist for **Custer**
 - ▶ Missed Little Bighorn
- ▶ Bridge between early geniuses & professional ornithologists
- ▶ Advisor to **Teddy Roosevelt**
- ▶ Swayed public opinion and promoted legislation to create Glacier National Park



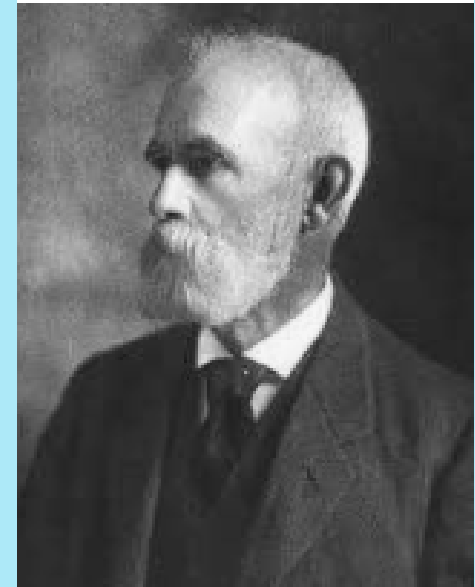
GIANTS OF AMERICAN ORNITHOLOGY

- ▶ **Robert Ridgeway** (1850-1929) –
- ▶ Work for **Baird** age 16
- ▶ Ornithologist, first full-time curator of birds at Smithsonian
 - ▶ Appointed by **Baird**
 - ▶ Held post for 50 years
- ▶ Taxonomy
- ▶ An AOU founder
- ▶ Editor of the Auk
- ▶ *The Birds of North and Middle America* (1901–1919)
 - ▶ 8 volumes
- ▶ No one else described more NA birds in this period

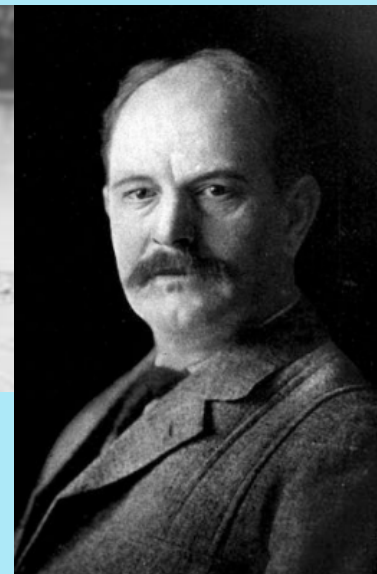


GIANTS OF AMERICAN ORNITHOLOGY

- ▶ **William Brewster** (1851-1919) –
 - ▶ Ornithologist, naturalist and conservationist
 - ▶ Co-founder of AOU
 - ▶ Founder Nuttall Ornithological Club
 - ▶ President of Mass Audubon
 - ▶ Legislation to restrict killing birds & sale of plumage
 - ▶ Lacey Act (1900) – prohibits interstate shipment of animals killed in violation of local laws



- ▶ **Frank M. Chapman** (1864-1945)
 - ▶ Originator of the Christmas Bird Count
 - ▶ Author
 - ▶ Bird Life
 - ▶ Birds of Eastern North America
 - ▶ Life in an Air Castle
 - ▶ Bird Studies With a Camera
 - ▶ Integrated photography into ornithology



GIANTS OF AMERICAN ORNITHOLOGY

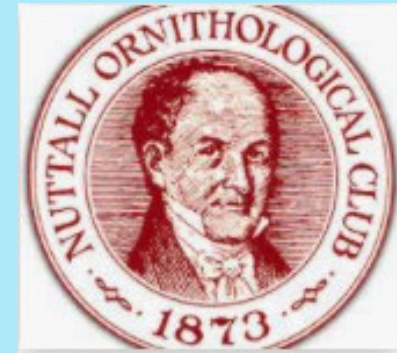
- ▶ **Arthur Cleveland Bent** (1866-1954) –

- ▶ *Life Histories of North American Birds*, (1919-1968)
- ▶ Encyclopedic 21-volume work
- ▶ Precursor to many additional such projects



- ▶ **The Nuttall Ornithological Club** (1873...

- ▶ First ornithology organization in NA
- ▶ Members a "who's who"



- ▶ **Arthur A. Allan** (1885-1964) –

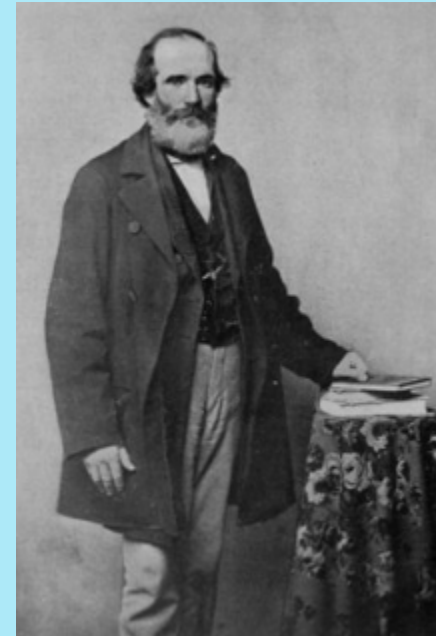
- ▶ Long career at Cornell
- ▶ Co-founder Cornell Lab of Ornithology
- ▶ Promoted ornithology & bird sound recording
- ▶ *Arthur A. Allen Award* – significant contributions to ornithology by making accessible to general public



GIANTS OF AMERICAN ORNITHOLOGY

▶ **John Cassin** (1813-1869) –

- ▶ Careful and talented taxonomist
- ▶ Described & named 198 birds
- ▶ Died of arsenic poisoning due to handling bird skins

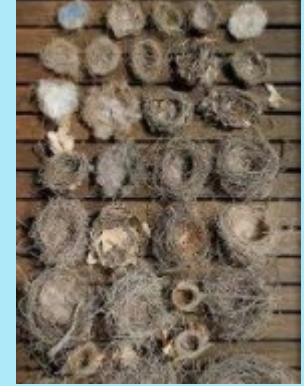


▶ **Martha Maxwell** (1831-1881) –

- ▶ Naturalist, artist and taxidermist
- ▶ Helped found modern taxidermy
- ▶ Pioneering diorama displays
- ▶ Naturally posed displays
- ▶ Encouraged by **Cous**
- ▶ Student of **Cassin's**



EXPLOITATION – COLLECTING



- ▶ Incredibly large collections of bird skins, eggs and nests

- ▶ **Lord Rothschild** (England)

>300,000 specimens

- ▶ **Allan Hume** (England)

> 100,000 specimens

- ▶ **Johnathon Dwight**

65,000 bird skins from NA, Costa Rica, Guatemala,

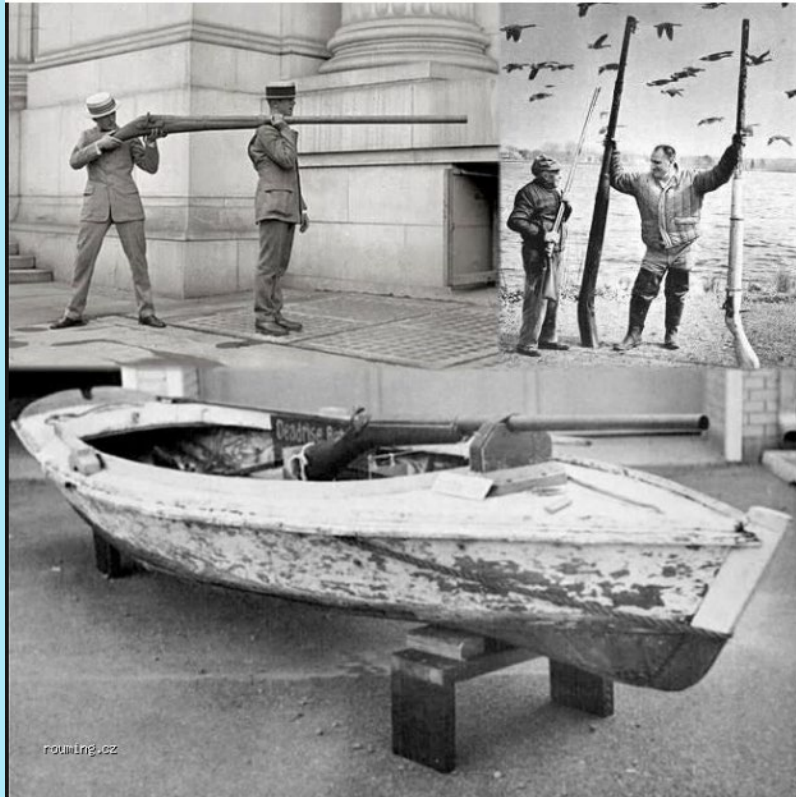
- ▶ **William Brewster**

40,000 NA bird specimens

Chair of the AOU Committee on Bird Protection !!!

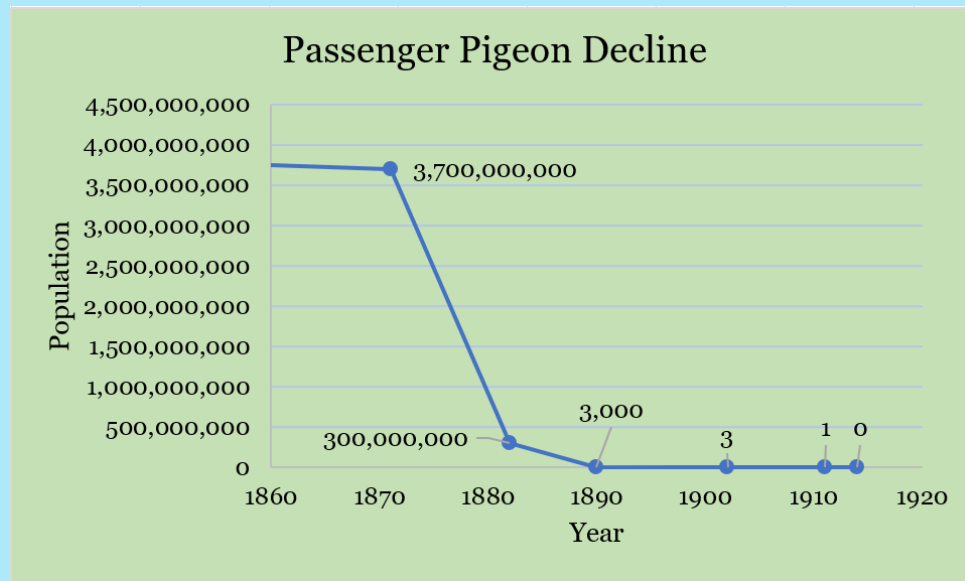


EXPLOITATION – MARKET HUNTING



PASSENGER PIGEON

- ▶ **1492:** Passenger Pigeon population are roughly 40 percent of all birds in NA. (3.5 billion)
- ▶ **1806:** **Wilson** observes a flight estimated at 2.23 billion birds.
- ▶ **1813:** **Audubon** encounters a flight that darkens the sky for 3 days.
 - ▶ “The dung fell like melting flakes of snow”
- ▶ **1860:** A flight in Ontario 1 - 3 billion birds.
- ▶ **1871:** Nesting covers 850 square miles (30 x 30 miles) holds 136 million nesting birds.
- ▶ **1878:** The last huge nests. Limiting laws are enforced. > 10 million birds still killed.
- ▶ **1882:** The last nestings of a few million birds
- ▶ **1890:** The wild population a few thousand birds.
- ▶ **1902:** The last wild Passenger Pigeon is shot.
- ▶ **1914:** Last captive Passenger Pigeon (Martha) dies – extinction!!!

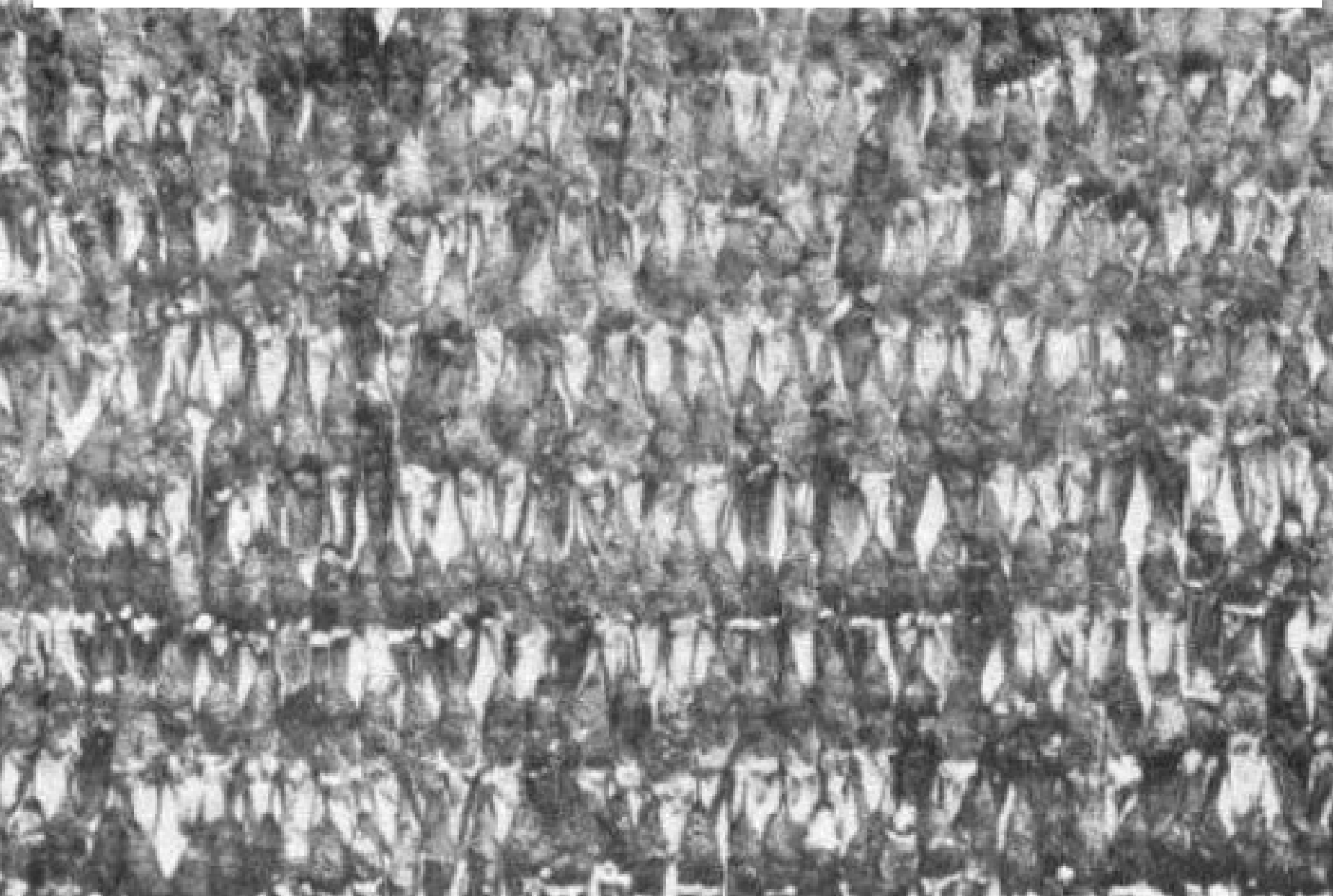


EXPLOITATION – FEATHER TRADE

- ▶ Feathered hats were a craze
- ▶ Millions killed for feathers
- ▶ 1800s – early 1900s
- ▶ Carcasses unused
- ▶ Chicks left parentless
- ▶ Tern, heron, egret populations destroyed on Atlantic Coast



“THE CARNAGE BEGGARS BELIEF !!!!”



EXPLOITATION – FEATHER TRADE

- ▶ 1886 – Ornithologist **Frank Chapman**
 - ▶ Walks streets of NYC counting decorated hats of ladies
 - ▶ Feathers
 - ▶ Wings
 - ▶ Heads
 - ▶ Whole bodies
 - ▶ 174 birds
 - ▶ 40 species
 - ▶ 5 million birds killed yearly



SUCCESS AGAINST THE SLAUGHTER

- ▶ **Grinnell** raised the alarm
 - ▶ Shotgun ornithology
 - ▶ Oology
 - ▶ Market hunting
 - ▶ Collector mania
 - ▶ Plume hunters
 - ▶ Hat trade
- ▶ 1886 He started a group to protect birds:
 - ▶ “The Audubon Society”
- ▶ Pledged to work against the slaughter
- ▶ 1888 defunct – various problems



EXPLOITATION – FEATHER TRADE

“ANGRY LADIES”

- ▶ 1896, Boston socialite **Harriet Lawrence Hemenway** (1858-1960)
- ▶ Read an article about feather hunting & trade
- ▶ Upset – she takes action !!!!
- ▶ She & cousin, **Minna B. Hall** organize a series of lady's teas
- ▶ Ask wealthy ladies to stop wearing hats with feathers
- ▶ 900 Boston women enlist in the cause boycotting feathered hats
- ▶ Encouraged the general public to do the same



SUCCESS AGAINST THE SLAUGHTER

- ▶ **Hemenway** and **Hall**, formed **Massachusetts Audubon Society** (oldest Audubon Society)
- ▶ Recruited **William Brewster** to be president
- ▶ **MAS** key in convincing state legislature to outlaw feather trade
- ▶ **Teddy Roosevelt** signed executive order (1903) protecting Pelican Island (Florida) – first federal bird reserve

▶ **It all started with two women determined to make a difference !!!!**

CONSERVATION

- ▶ **William Dutcher** (1846 - 1920) – “a dervish of activity”
 - ▶ Businessman, amateur bird photographer, ornithologist
 - ▶ Keen proponent of bird conservation.
 - ▶ Served in AOU
 - ▶ Helped pass key legislations
 - ▶ Bird protection
 - ▶ Helped establish Pelican Island – first National Bird Reserve in 1903.
- ▶ **Rosalie Barrow Edge** (1877 – 1962) environmental advocate, socialite, suffragist, and amateur birder
 - ▶ 1929 established the Emergency Conservation Committee to expose the conservation establishment's ineffectiveness, and strongly advocate for species preservation.
 - ▶ 1934 – founded first preserve for birds of prey – Hawk Mountain Sanctuary

CONSERVATION: OTHER FIGURES

- ▶ **Henry David Thoreau** (1817-1862) American essayist, poet, and philosopher best known for his book *Walden*, a reflection on simple living in natural surroundings.
- ▶ **John Muir** (1838-1914) Scottish-American naturalist, author, environmental philosopher, botanist, zoologist, glaciologist, and early advocate for the preservation of wilderness. His writings have been read by millions.
- ▶ **Teddy Roosevelt** (1858-1919) American statesman, conservationist, naturalist, historian and writer, who served as the 26th president of the US.
- ▶ **Franklin D. Roosevelt** (1882-1945) Roosevelt had a lifelong interest in the environment and conservation starting with forestry on his family estate. As the 32nd president, he was active in expanding, funding, and promoting the National Park and National Forest systems. The CCC also built 13,000 miles of trails, planted two billion trees, and upgraded 125,000 miles of dirt roads.
- ▶ **Rachel Carson** (1907-1964) Her book *Silent Spring* (1962) warned of the dangers to natural systems from pesticides such as DDT, and questioned the scope and direction of modern science.

BIRDERS – A GROWING FORCE

- ▶ Other Audubon Societies form – many started by women
- ▶ 1899 – Audubon societies in 17 states
- ▶ 1901 – individual Audubon societies become more affiliated
- ▶ 1905 – reorganize into a national organization
- ▶ 1940 – name shortened to National Audubon Society

2 MAJOR INNOVATIONS

► Optics

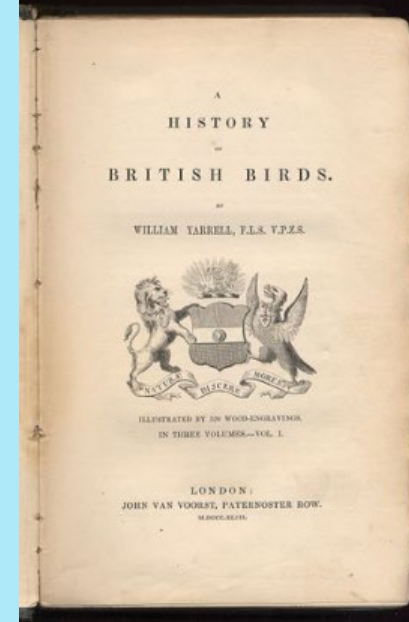
- 1820s – 1830s – first used for bird observation
- 1880s – Written guides begin to recommend "a first-class telescope" or "field glass"



2 MAJOR INNOVATIONS

► Early Field Guides

- Cumbersome – 2-3 volumes
- Focused on specimens in the hand
- **Thomas Bewick** – *A History of British Birds* (1797, 1804, 1821)
- **William Yarrell** – *A History of British Birds* (1843)
 - 564 engravings

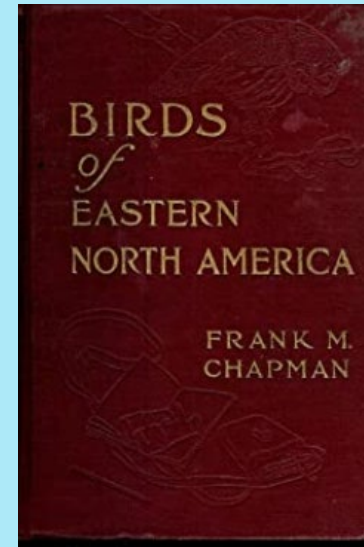


FIELD GUIDES & OPERA GLASSES

- ▶ Interest in birding grew
- ▶ 1890 – **Florence Merriam Bailey** – First modern field guide *Birds Through an Opera-Glass*
- ▶ 1900 – **Frank M. Chapman** (1864-1945) -- Christmas Bird Counts developed from “The Match Hunt”
- ▶ 1916 – Potential for amateur contributions recognized –

“a vast army of bird lovers and bird watchers could begin providing the data scientists need to address the fundamental problems of biology”.

Julian Huxley (biologist)

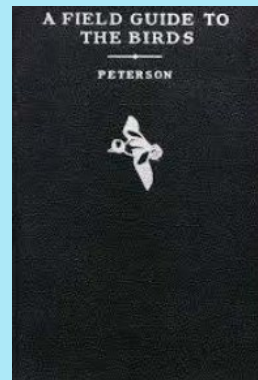
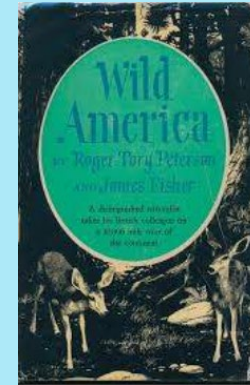


“SYSTEMATICS”

- ▶ Early ornithologists preoccupied with systematics (taxonomy)
- ▶ Only matters of species identification counted as true science
- ▶ Field studies considered inferior through much of the 19th century
- ▶ In 1901, **Robert Ridgway** described 2 kinds of ornithology:
 - ▶ Systematic (or scientific) – structure, classification, technical description
 - ▶ Popular – their habits, songs, nesting, and life history

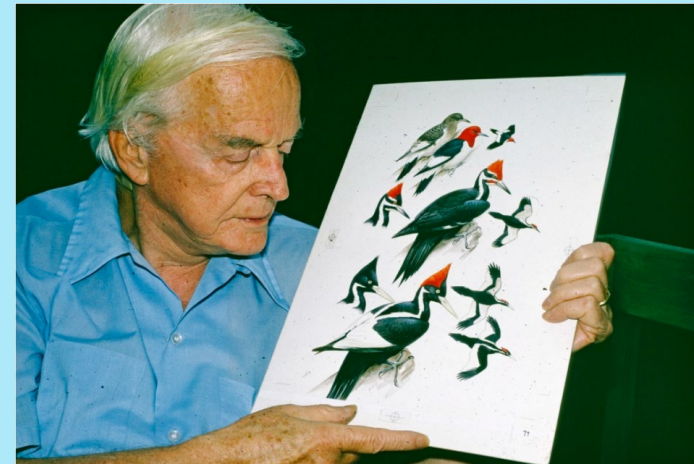
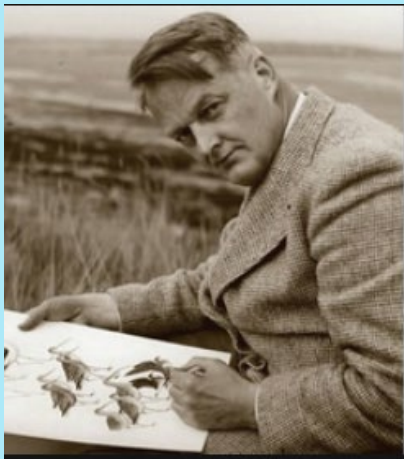
RISE OF FIELD BIRDING

- ▶ **Ludlow Griscom** (1890 – 1959)
 - ▶ Fascinated by field ID.
 - ▶ Helped show sight IDs can be quick & reliable.
 - ▶ Teacher to “Bronx County Bird Club” which included **Roger Tory Peterson** age 17
- ▶ 1934 – *Field Guide to the Birds*, **Roger Tory Peterson**
- ▶ 1955 – *Wild America*, **Roger Tory Peterson & James Fisher** (saw 572 species)
- ▶ 1971 – **Ted Parker** casually announced that he had seen 626 birds in the AOU checklist area.
- ▶ 1973 – **Kenn Kaufman** – would later be known as a “big year” in *Kingbird Highway* (1997)



ROGER TORY PETERSON

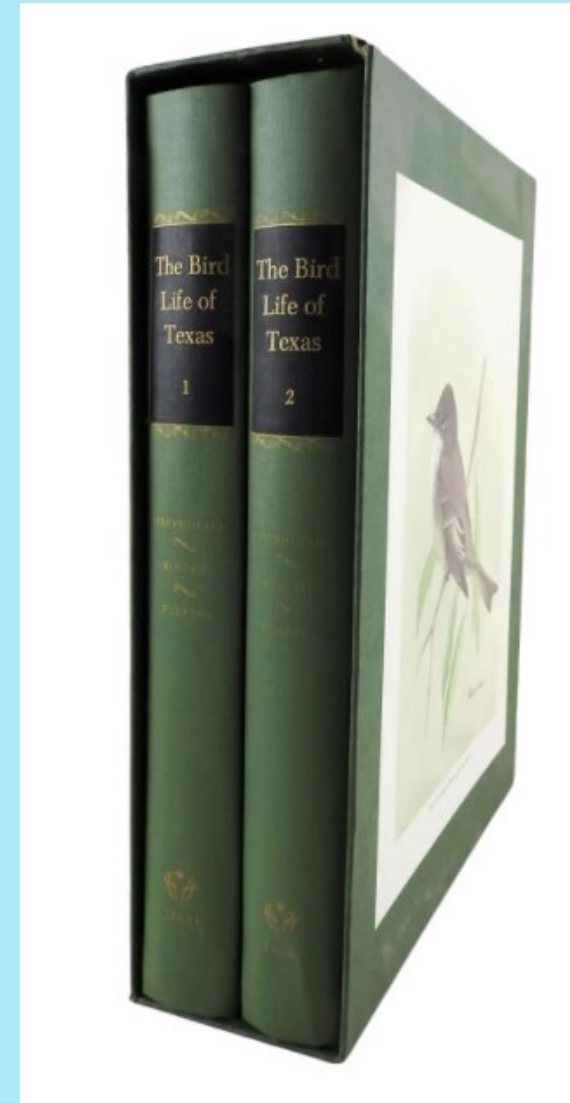
- ▶ **Roger Tory Peterson** (1908 – 1996)
- ▶ 1934 – New field guide revolutionized birding
- ▶ 2000 sold out almost immediately
- ▶ Glowing reviews
- ▶ System of "identification by elimination," – narrow possibilities by:
 - ▶ Range
 - ▶ Season
 - ▶ Broad shape (later would be called "GISS")
- ▶ “Field Mark System” -- arrows to indicate telling field marks
- ▶ Thoroughly revised for 2nd edition with improved artwork (1947).





TEXAS CONNECTIONS: HARRY CHURCH OBERHOLSER

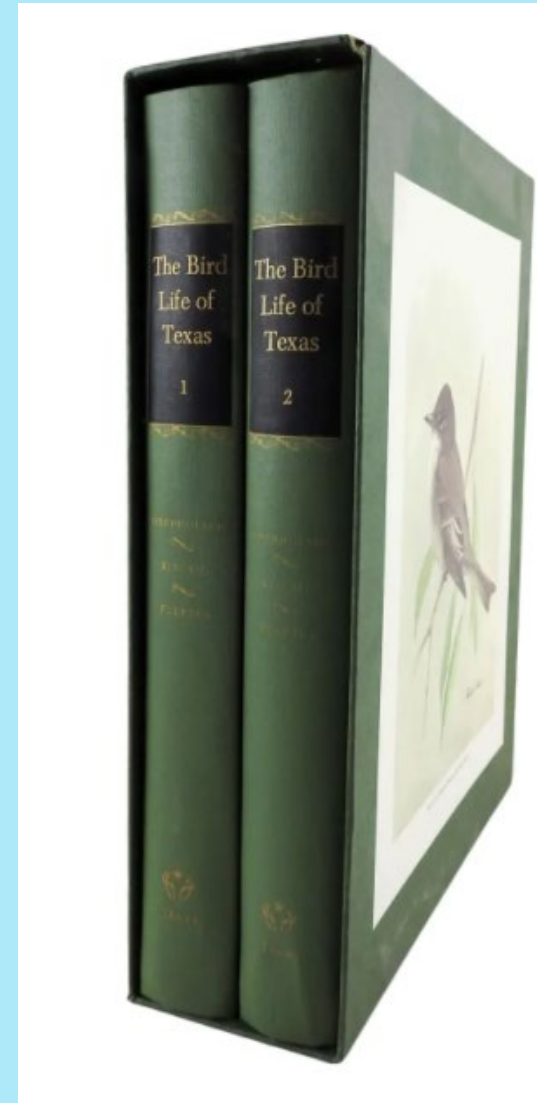
- ▶ **Harry Church Oberholser** (1870-1963)
 - ▶ Ornithologist & museum curator
 - ▶ Compiled 12,000 page manuscript
 - ▶ 50 years of findings on Texas birds
 - ▶ Became *The Bird Life of Texas*
 - ▶ Monumental !!
 - ▶ Published 11 years after his death (1974)
 - ▶ *Empidonax oberholseri* (Dusky Flycatcher)



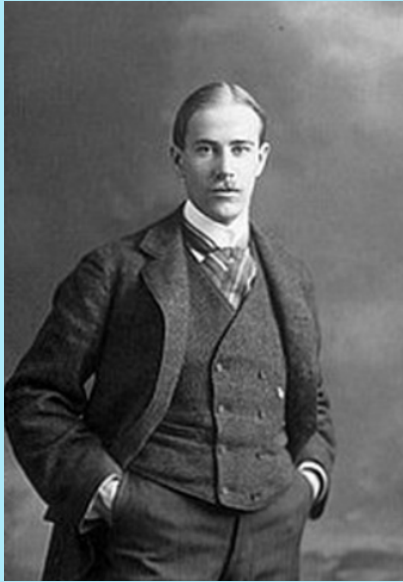


TEXAS CONNECTIONS: EDGAR KINCAID

- ▶ **Edgar Kincaid** (1921-1985) –
 - ▶ Edited *The Bird Life of Texas*
 - ▶ Took 10 years
 - ▶ Cut 3 million words down to 1 million
 - ▶ Innovative maps
 - ▶ Eccentric
 - ▶ Lived across from UT law school
 - ▶ **J. Frank Dobie's** nephew
 - ▶ Habit of bestowing bird names on his friends
 - ▶ “The Cassowary”

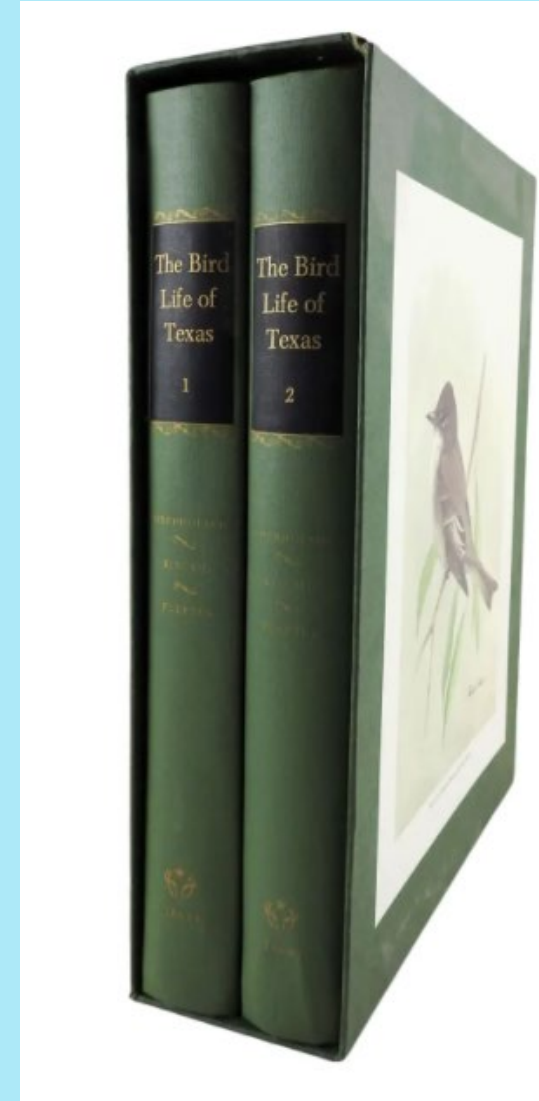


TEXAS CONNECTIONS: LOUIS AGASSIZ FUERTES



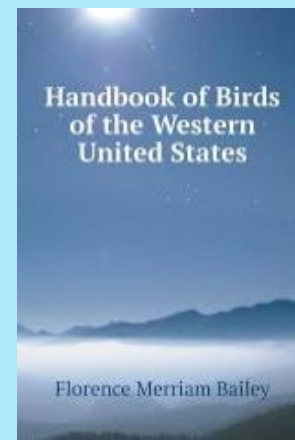
► **Louis Agassiz Fuertes** (1874 – 1927)

- Artist for *Bird Life of Texas*
- Set the current-day standards for ornithological art
- Killed in train wreck



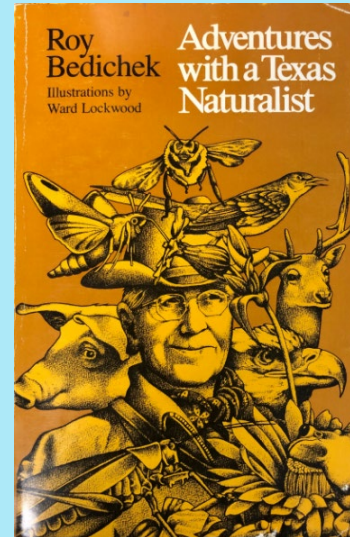
TEXAS CONNECTIONS: FLORENCE MIRRIAM BAILEY

- ▶ **Florence Mirriam Bailey** (1863-1948)
- ▶ Ornithologist and nature writer
- ▶ Traveled in and wrote about Texas
- ▶ Married biologist who accompanied **Oberholser** to Big Bend (**Vernon Bailey**)
- ▶ See thread in Texbirds Archives, July 2020, “*Early Female Ornithologist Florence M. Bailey visits Texas & Mexico in 1900*”



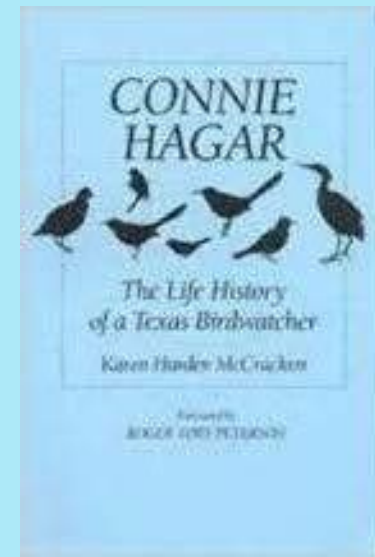
TEXAS CONNECTIONS: ROY BEDICHEK

- ▶ **Roy Bedichek** (1878-1959)
- ▶ 1 of 3 down-to-earth Texan intellectuals and writers
 - ▶ **J. Frank Dobie**
 - ▶ **Walter Prescott Webb**
- ▶ Asserted the values of the life-of-the-mind
- ▶ At the time, most Texans concerned with agriculture, oil, mercantilism, and football
- ▶ Wrote of Texas folklore, history, and natural wonders
- ▶ Coined the term “biodiversity”
- ▶ Spent time most days in discussion at Barton Springs
- ▶ Memorialized in *Philosopher's Rock* sculpture



TEXAS CONNECTIONS: CONNIE HAGAR

- ▶ **Connie Hagar** (1886-1973)
- ▶ Amateur birder in Rockport, Texas
- ▶ Kept records over many years
- ▶ Corresponded with **Oberholser**, **Bedichek** and other naturalists
- ▶ Gained respect of doubting professional ornithologists
- ▶ Helped "put Texas on the birding map"
- ▶ Added 20+ species to avifauna list of Texas
- ▶ First to report numerous migratory species, including several thought extinct



MODERN BIRDERS

- ▶ Authors, Ornithologists, Field Birders
 - ▶ Theodore A. Parker (Ted) (1953-2005)
 - ▶ Pete Dunne (1951-)
 - ▶ Kenn Kaufman (1954-)
 - ▶ David A. Sibley (1961-)
 - ▶ Barry Zimmer (1955-)
 - ▶ Jon L. Dunn (1955-)
 - ▶ Jonathan Alderfer (1955-)
 - ▶ And many others
- ▶ Professional & Amateur Field Guides
- ▶ Academic Ornithologists & Researchers
- ▶ Birders – CBC-ers, BBS-ers, feeder watchers, club members, citizen scientists
!!!