A Brief History of Beekeeping

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“Life is Sweet in Kansas!”
Agenda

• Beekeeping Overview
• The Three General Historical Stages of Beekeeping
  • BeeHunter/Gatherers
  • BeeDomesticators
  • Beekeepers
• American Beekeeping

* Presentations @ www.NEKBA.org
References

- The World History of Beekeeping and Honey Hunting, Eva Crane
- The ABC and XYZ of Bee Culture, A.I. Root
- National Honey Board
- Numerous Internet Resources
- Boogerhill Bee Company Beekeeping Class
- Bee Culture Magazine
Why Beekeeping?

Honey – Beeswax - Propolis

- Food! Sweetener! Mead!
- Status Symbol
- Bartering/Legal Tender
- Religious and Ceremonial
- Medicinal
- Science
- Pollination
Historical Timeline

• For 150 – 100 Million Years
  – Flowering plants have existed and produced nectar and pollen

• For 50 – 25 Million Years
  – Solitary bees had existed, also early primates

• For 20 to 10 Million Years
  – Social bees have produced and stored honey

• For a few Million Years
  – Man has existed and has eaten honey

• For a few Thousand Years
  – Records exist of man’s exploitation of honey
The Three General Historical Stages of Beekeeping

- BeeHunter/Gatherers
- BeeDomesticator
- BeeKeepers
BeeHunter/Gatherers

• Survival – Seek out and rob wild bee colonies
• No regard for the survival of the bees
BeeHunter/Gatherers

Early rock paintings on cave walls in Africa and eastern Spain show people gathering honey with beezzzz a buzzin’.
Man of Bicorp
Discovered - early 1900's in Valencia, Spain
Estimated - 8,000 years old
BeeHunter/Gatherers

- All food is bland at best, bitter at worst
- Honey harvest painful and dangerous
BeeHunter/Gatherers

• Techniques still used today
BeeHunter/Gatherers
The Three General Historical Stages of Beekeeping

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BeeDomesticators

- At some point, humans began to domesticate wild bees in artificial hives made from hollow logs, wooden boxes, pottery vessels, and woven straw baskets or "skeps."
BeeDomesticators

• In 3000 B.C., there are written records of migratory beekeeping up and down the Nile river in ancient Egypt.
BeeDomesticators

- Egyptian hieroglyphics – 2400 BC
The Bible

• In Exodus, Cannan is referred to as “The land of milk and honey.”

• King Solomon: "My son eat thou honey, because it is good, and the honeycomb which is sweet to thy taste".

• Samson: “..and he turned aside to see the carcass of the lion: and, behold, there was a swarm of bees and honey in the carcass of the lion.”
Egypt
660 B.C.
BeeDomesticators

• 1,700 to 2,500 years ago, Greek and Roman civilizations flourished.
• Greek and Roman mythology often mentioned bees or honey.
• Aristotle, Plato, and many other philosophers wrote about bees.
India, 500 B.C.
BeeDomesticators

- Africa – South Africa
- Asia...
- Mayans – Stingless bees
  - Oldest New World Beekeeping artifacts – 300B.C. to 300 A.D.
  - Mayan Bee God - “Ah Mucan Cab”
BeeDomesticators

• However....

• Hives were plundered without an understanding of the life cycle of the bee or the structure of the hive.

• Typically, bees were killed in the fall and the contents of the hive consumed.
In these early days:

- Human understanding of Bee biology and ecology of bees was very limited and,
- Riddled with superstition and folklore. Ancient observers thought that the queen bee was in fact a male, called "the king bee".
BeeDomesticators

- Additionally….
- One could not observe bees inside a skep or log!
- They did not understand beespace, bees would build comb everywhere…
- Had to cut it out…
0 to 1400 A.D.

• Rome declining (300 A.D.)
• Fall of Rome (450 A.D.)
  – Travel Unsafe
  – Knowledge not easily disseminated
• Dark Ages
  – No written history
  – No major achievements
• Black Plague 1350 (75 Million Dead!)
• Beginning of the Renaissance (1400ish)
• Printing Press 1450
• Monks
Medieval Handbook on Health
The Three General Historical Stages of Beekeeping

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Beekeeping Defined

Beekeeping (Apiculture) is the practical management of the social species of honey bees that live in large colonies.
• Over 20,000 species, many are solitary or rear their young in small colonies
• Genus – Apis
  • Species
    – Dorsada – Asian, Large, Single Comb, Outside Dwelling
    – Florea – Asian, Small, Single Comb, Outside Dwelling
    – Cerana – Asian, Small, Parallel Comb, Cavity Dwelling
    – Mellifera – Africa/Europe/Mid-East, Parallel Comb, Cavity Dwelling
BeeKeepers

- Beekeeping changed most between 1500 and 1851
BeeKeepers

• Science weighs in:
  • The first revolutionary discovery involved understanding the life cycle of the bee. In 1586, Luis Méndez de Torres - Spain - first described the queen bee as a female that laid eggs.
  • In 1609, Charles Butler - England - identified the drones as male bees.
  • In 1637, Richard Remnant - England - recognized that the worker bees were females.
Francis Huber (Sweden)

- Father of Modern Bee Science
- Fully movable frame, Leaf, hive 1789
- Observations on Bees
- Queen mating practices and role of Drones
Dr. Johann Dzierzon (Poland)

- Discovery of parthenogenesis in Queen bees 1835.
- Devised the first practical movable-comb beehive, 1838
- Discovery of Royal Jelly and its role in Queen development 1854.
Rev. Lorenzo Lorraine Langstroth (1810 – 1895)

“Father of American Beekeeping”
Yee Haw! 1851

L.L. Langstroth clarifies bee space, the 3/8 inch needed between frames for bees to build comb.

The Langstroth Movable Frame Hive is the first and most important invention in creating a commercial beekeeping industry.
History

• 1800s - Commercially Viable
  • Moveable Frame Hive
  • Smoker
  • Comb Foundation Maker
  • Honey Extractor
  • Protective Clothing
1900’s

- Breeding Honeybees
- More Scientific Studies/ Labs Open
- More interest in Beekeeping
- Commercial Businesses grew
2000’s

• Increased public awareness of the critical role that Honeybees play in the ecosystem and their role in pollination of food crops!

• Increased literary interest in Bees and Beekeeping as evidenced by the success of ‘The Secret Life of Bees’, ‘The Beekeeper’s Apprentice’, etc.
American Beekeeping History

- Honey Bees Not Native to the U.S.
- Bees/Beekeeping skills to the New World
  - Early 1600s – Human Assisted Migration to the Colonies
- By the 1800’s – Honey Bees distributed from the East Coast to the Mississippi River
- In Kansas – early 1800s
American Beekeeping History

- Human Assisted Migration
  - 1644 – Connecticut
  - 1670 – New York (Long Island)
  - 1698 – Pennsylvania
  - 1730 – North Carolina
  - 1743 – Georgia
  - 1773 – Alabama
  - 1780 – Kentucky
  - Ohio – 1788 and Illinois - 1820
• The U.S. Honey Bee population is declining:
  • 1947 - 5.9 million colonies
  • Today – about 2.5 million
  • Why?
    • Colony Collapse Disorder
    • Pesticides
    • Mites
  • Fewer Beekeepers…210,000 in U.S.
Kansas Beekeeping

• A great place for Honey Bees!
• Kansas Beekeepers = 1,500 +-
• 30,000 colonies
• Northeast Kansas Beekeepers Association
• Kansas Honey Producers Association
Summary

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