Official curriculum for the NCSBA Master Beekeeper Program Certified Level course of instruction

Species and Races of Honey bees

Animalia - Arthropoda - Insecta - Hymenoptera – Apidae

Genus: *Apis*

Scientific Name	Common Name	Native Range / Origin
Apis dorsata	Giant Honey Bee	Southeast Asia
Apis florea	Dwarf Honey Bee	Southeast Asia
Apis cerana	Indian Honey Bee	SE Asia to India
Apis mellifera	European Honey Bee	Europe, Middle East & Africa

Relative body size of the four major *Apis* species

Apis *dorsata* - Giant Honey Bee

Apis florea - Dwarf Honey Bee

Comb structure of the Dwarf Honey Bee (*Apis florea*)

Indian Honey Bee (*Apis cerana*)

European Honey Bee

Apis mellifera

Apis mellifera ligustica
Italian race

Apis mellifera mellifera

German race

Apis Mellifera carnica – Carniolan race

A. m. caucasica
Caucasion Race

Characteristics of major *Apis mellifera* races

Characteristic	Italian	German	Carniolan	Caucasian
Latin name	ligustica	mellifera	carnica	caucasica
Origin	Italy	n. Europe	Macedonia	s. Russia
Swarming tendency	fair	fair-strong	strong	weak
Use of propolis	moderate	moderate	moderate	excessive
Temperament	gentle	defensive	gentle	gentle
Robbing tendency	strong	strong	weak	strong
Spring build-up	fast	slow	moderate	moderate
Overwintering	fair	good	good	good

Hybrids

TYPES & HYBRIDS

Italian Hybrids (e.g. “Midnite”, “Starline”, “All-American”)
gentle, good honey producer, little or no parasite resistance, overwintering fair

Old World Hybrids (e.g. “Buckfast”)
very gentle, great honey producer, tracheal mite resistant, overwintering good

TYPES & HYBRIDS

Carniolan Hybrids (e.g. "New World Carniolan")
gentle, fair honey producer, tracheal mite resistant, overwintering fair

Russian Bees (e.g. "Purple", "White", "Green', etc.)
gentle, good honey producer and overwintering, some varroa mite resistance

THE RUSSIAN HONEY BEE

- From the Eastern part of Russia in the Primorsky region
- This region of Russia is home to Varroa mites and Tracheal mites, and it had been hypothesized that the local bees might be resistant
- Brought into the United States by the USDA in 1997 due to the potential for Varroa mite resistance

TYPES & HYBRIDS

Mite-resistant stock (e.g. "SMR". "Harbo", Ankle Biters)
some varroa mite resistance, but poor honey producer

Africanized Bees

Apis mellifera x *scutellatta*

Africanized honey bees

European honey bees

Progression of the Africanized Honey Bee

University of California Cooperative Extension

For most people, a few bee
stings, although discomforting, are
not life-threatening. Even healthy
adults who have received hundreds
of stings at once have survived
when provided with prompt medical
attention.

However, about one in 100 peo-
ple is allergic to honey bee venom.
For people who are highly sensitive
to the venom, even a single sting
can be extremely danger

sting if provoke
form new colonies from sp
fall. While this may look threaten-
ing, the bees will usually not bother
you if you avoid the swarm. People
and animals are most likely to be
stung when they are near a nest. All
bees become dangerous
nests, and Afri

Hum turns to mayhem

30,000 bees swarm, 'wouldn't go away'

By Todd Benesman
Special for USA TODAY

PHOENIX — The trouble started with a loud menacing hum under John and Gina Musselman's bedroom floor.

Before the nightmare was over, 30,000 bees had rampaged through a neighborhood, attacking people and killing dogs with a tenacity befitting an Alfred Hitchcock film.

The long prophesied attack of the Africanized "killer bees" had arrived.

"They were just knocking up against the windows, attacking, attacking. I sat there ... wondering, 'What am I supposed to do?'" says Gina Musselman, trapped in a car during the nine-hour battle. "So I backed up and drove away, ... the car six blocks lat-

DEATH O
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Savage stingers make a beeline for San Diego

By STEVE La RUE
Staff Writer

They lurked for months in a crawl space under a suburb
hoenix home. Then, on Oct. 9, some-
their nest in an amateurish attempt

of so-called killer bees filled the
that moved in the Phoenix area's
from Brazil, which first entered
xas in 1990.

ts in a three-block area in-
our or five people were stung
hospitalized. Two dogs lay

hile. It was right around
were in their houses any-
J. Creekmore, a police
unity of Peoria.

have reached Califor-
officials trapped
Morelos Dam, on
Arizona line.

Imperial Valley as

ntro, and I sus-
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California D

bees trapped
dentified as
beybees, a
likelihood
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New swarm of 'killer' bees found

19 July 93

By Jim Erickson
The Arizona Daily Star

Bees from 2 more swarms identified as Africanized

By Jim Erickson
The Arizona Daily Star

Two more swarms of bees trapped
Sasabe have been identified as
"killer" honeybees, a
"the pioneer
Arizona,"

north since they
breeding

If the Sasabe swarms represent the first colonies of Africanized bees migrating into Arizona, Tucson residents can expect to see the bees next spring.

23 July 93

THE SAN DIEGO UNION-TR

LES (AP) — African-
bees turned up in a trap
Tuesday, last month and
authorities expect the so-called
killer bees to make their first
appearance in California in the
near future.

The trap was four miles south
west of Yuma on the Arizona side of
the Colorado River. No traps on the
California side caught any bees.

Carl DeWing, spokesman for the
California Department of Food and
Agriculture, said the first hives of

Africanized
show up in the
It could be soo
Eric Mussen, an ap
University of Californ
"It may be they'll
within days, weeks, m
sure," Mussen said Friday.

Killer bees are expe
make their first appearance i
fornia in the Imperial Valley
cultural region or around S
Diego, according to UC entomol
ists. How the bees spread la

A swa
Arizona D
west side of
River, which sep
strain of bee on Cali
swarm into the Imperial
Diego County no more than
new traps at two reservoirs to th

This map shows the progression of the bees since 1957, when they escaped from a research facility in Brazil.

Africanized bee on left is
quite from European

'Killer bees' called likely culprits

By STEVE La RUE
Staff Writer

think it was Africanized honey
ed "killer bees" of Brazil,
in Mexicali recently
ectrical wire

Africanized bees are said to sting 10
times more often, to be much more aggres-
sive, and to pursue victims much farther
than indigenous European bees, which
they resemble.

The dead bees from Mexicali have been
shipped to a laboratory in Mexico City, an
positive identification is expected in a wee

anticipate that the main f
bees probably won't
of next year,
's

Africanized Honey Bees are established in:

Texas

New Mexico

Arizona

California

Nevada

Utah

bees.ucr.edu