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Pollinators- Sparrow Field, "Pollinator Garden Berm", 2011-2017 The Landing's,
Skidaway Island, Savannah, Chatham Co, Ga. 31411

From, 8/2011-present I have photographed the below members of the order,
"Hymenoptera" (Bees, Wasp and "Diptera" (flies) at the Landing's Sparrow Field
and the 150 yard "Pollinator Garden Berm".

I personally believe the concept "**Bringing Nature Home**" should be at the fore
front of our thought process of **protecting**, as well as **reintroducing the native
plants that are/were "native" to Skidaway**, our inner barrier island. We should
work toward **creating habitat for beneficial insects**, by providing **mainly native**
"flowering (nectar sources)". Our resident and migrating birds depend on the
protein derived from a healthy insect population. I highly recommend the
addition to your nature library, "**Bringing Nature Home**" by **Dr. Douglas W.
Tallamy. Please note chapter # 9, "Gardening for insect diversity"!**

Additionally plants are being added to the edges of our lagoons to **stabilize the
soil about our 151 lagoons, helping to prevent the lagoons from filling in.**

In regards to these all important lagoons please recognize that we have, at
present, identified **45 species of Odonata (Dragonflies and damselflies" here in
Chatham County, Ga.** Please view the checklist "Odonata central.org ":
(http://www.odonatacentral.org/index.php/ChecklistAction.showChecklist/location_id/11667)

Odonata spend **app 80-85 percent of their lives under water**, as in the larval
stage (also called nymph or naiads). Each successive stage of larval growth is
called an instar as in butterflies and other insects. Odonata larvae are fearsome
predators of any creature smaller than themselves. Likewise they are also choice
prey for larger creatures such as fish, turtles, amphibians, and birds. Larval

odonates are **aggressive predators (biological controls)** of larval stage mosquitoes, as is the adult dragonfly and damselfly against adult mosquitoes. **Walk through the Sparrow Field and observe the many species**, mostly the female odonata. When the females reach sexual maturity they return to the breeding habitat (mainly our lagoons) where the males have established a good section of breeding habitat, patrol and defend it against other males and await the arrival of females.

The Landing's Sparrow Field Pollinators: Below are listed those pollinators I have located, photographed and identified to date, 4/7/2017. Please save this listing and build upon it:

Recommended website: **BugGuide.net** (all below listed have been vetted and verified via this website), Iowa State University, Department of Entomology!

Please click upon my "Flickr" link to view images of the below listed pollinators: <http://www.flickr.com/photos/39511843@N07/> once opened click on the "Album" insect of interest, Bees, Wasp, Flies.

Order: Hymenoptera: (Bees, Wasp, Ants and Sawflies)

- Apidae, Carpenter Bee, Ceratina subgenus Zadontomerus
- Apidae, Cuckoo Bee, (Epeolus zonatus)
- Apidae, Cuckoo Bee, (Nomada genus)
- Apidae, Cuckoo Bee, (Nomada fervida) (easily mistaken as a wasp)
- Apidae, Cuckoo Bee, (Nomada vegan)
- Apidae, Cuckoo Bee, (Triepeolus lunatus)

- Apidae, Eastern Carpenter Bee, (*Xylocopa virginica*)
- Apidae, Honey Bee, (*Apis mellifera*)
- Apidae, Long-horned Bee, (*Melissodes bimaculata*)
- Apidae, Long-horned Bee, (*Melissodes communis*)
- Apidae, Southern Carpenter Bee, (*Xylocopa micans*)
- Apidae, Eastern Bumble Bee , (*Bombus impatiens*.Common)
- Halictidae, Sweat Bee, (*Agapostemon splendens*)
- **Halictidae, Sweat Bees, (*Halictus ligatus*)**
- Halictidae, Sweat Bees, **Lasioglossum** Subgenus (*Dialictus* sp)
- Halictinae, Sweet Bees, **Lasioglossum** Subgenus (*Tegulare* sp)
- **Megachilidae**, Say's Cuckoo-leaf-cutter (*Coelioxys sayi*)
- Megachilidae, Cuckoo-leaf-cutter Bee (*Coelioxys slosoni*)
- Megachilidae, Carpenter-mimic-Cuckoo-leaf-cutter (*Coelioxys dolichos*)
- **Megachilidae**, Carpenter-mimic-Leaf-cutter, (*Megachile xylocopoide*)
- **Megachilidae**, Leaf- cutter, (*Megachile brevis*)
- **Megachilidae**, Hostile Leaf-cutter Bee (*Megachile inimical sayi*)
- **Megachilidae**, Flat-tailed Leaf-cutter Bee, (*Megachile mendica*)
- Megachilidae, White-footed Leaf-cutter Bee (*Megachile albitarsis*) (**added 10/18/2015**)
- **Megachilidae**, Leaf-cutter and Resin Bees, Subgenus (*Chelostomoides*)
- **Megachilidae**, Leaf-cutter & Resin Bees, subgenus (*Litomegachile*)
- **Megachilidae**, Leaf-cutter & Resin Bees, Subgenus (*Sayapis*)

- **Megachillidae**, Mason Bees, (*Osmia chalybea*)

Order: Diptera (Flies)

The first five are “Robber Flies”, “may be considered Indirect Pollinators-as they capture prey and move from plant to plant”- thanks Anthony)

- Asilidae, Robber Fly, Bee Killer, (*Mallophora bomboides*)
- Asilidae, Robber Fly, Bee Killer, (*Mallophora orcina*)
- Asilidae, Robber Fly, (*Diomites* sp)
- Asilidae, Robber Fly, (*Machimus* sp)
- Asilidae, Robber Fly, (*Promachus* sp)
- Bombyliidae, Bee Fly (*Anthrax aterrimus*)
- Bombyliidae, Bee Fly, (***Anastoechus barbatus***)
- Bombyliidae, Bee Fly, (*Bombylius mexicanus*)
- Bombyliidae, Bee Fly, (*Chrysanthrax cypris*)
- Bombyliidae, Bee Fly, (*Hemipenthes celeries*)
- Bombyliidae, Bee Fly, (*Systoechus candidulus*)
- Bombyliidae, Bee Fly – (*Systoechus solitus*)
- Bombyliidae, Scaly Bee Fly, (*Lepidophora lepidocera*)
- Bombyliidae, Bee Fly, (*Villa* SP)
- Conopidae- Thick-headed Flies, (*Myopinae* sp)
- Canopidae- Thick-headed flies, (*Physocephala* sp)
- Conopidae, Thick-headed Flies, (*Physocephala sagittaria*)

- Conopidae, Thick-headed Flies, Physoconops , **Subgenus Pachyconops**
- Conopidae, Thick-headed Flies, (Physoconops floridana)
- Dolichopodidae, Long-legged Flies, (Condylostylus SP)
- Muscidae, Flesh Fly, (Sarcophaga pernix)
- Stratiomyidae, Soldier Flies (Hedriodiscus trivittatus)
- Syrphidae, Syrphid Fly, Eristalinae, (Eristalis tenax)
- Syrphidae, Syrphid Fly, Eristalinae, (Eristalis dimidiata)
- Syrphidae, Syrphid Fly, Eristalinae, (Palpada albifrons)
- Syrphidae, Syrphid Fly, Eristalinae, (Palpada agrorum)
- Syrphidae, Syrphid Fly, Eupeodes sp, subgenus Metasyrphus
- Syrphidae, Syrphid Fly, Common Oblique Syrphid (Allograpta obliqua) (**Larvae are predators of aphids**)
- Syrphidae, Four-spotted Aphid Fly (Dioprosopa clavata) (**Larvae are predators of aphids**)
- Syrphidae, Syrphid Fly, (Meromacrus acutus)
- Syrphidae, Syrphid Fly, (Ocyptamus costatus)- **Larvae are predators of aphids**
- **Syrphidae, Syrphid Fly, (Ocyptamus cylindricus)- Larvae are predators of aphids**
- **Syrphidae, Syrphid Fly, (Ocyptamus fuscipennis)- Larvae are predators of aphids**
- Syrphidae, Syrphid Fly, (Pelecinobaccha costata)
- Syrphidae, Syrphid Fly, (Tropidia albistylum)

- Syrphidae, Syrphid Fly, (*Toxomerus geminatus*)- voracious predators of aphids
- Syrphidae, Syrphid Fly, (*Toxomerus marginatus*)- voracious predators of aphids
- Syrphidae, Syrphid Fly, (*Pseudodoros clavatus*)
- Syrphidae, Syrphid Fly, Thick-legged Hoverfly, (*Syrpitta flaviventris*)
- Tachinidae, Parasitic Fly, (*Archytas apicifer*)
- Tachinidae, Parasitic Fly, (*Archytas lateralis*) Larvae are parasitoids of tent caterpillars (*Malacosoma*).
- Tachinidae, Parasitic Fly, (*Cordyligaster septentrionalis*)
- Tachinidae, Feather-legged Fly (*Trichopoda lanipes*)
- Tachinidae, Feather-legged Fly, (*Trichopoda pennipes*)
- Tachinidae, Feather-legged Fly, (*Trichopoda plumipes*)
- Tachinidae, (*Xanthomelanodes atripennis*)
- Telphritidae-Fruit Fly family (*Paracantha culta*)
- Ulidiidae, Picture-winged Fly, (*Zacompsia fulva*)

Wasp (Apoidea Wasps (Apoidea)- traditional Sphecidae)

- 1) Aphidiinae, Aphidiid Wasp (*Lysiphebus testaceipes*) **female parasitoid lays eggs in the Aphid nymphs**, less than 3 mm, dark greenish to black
- 2) Braconidae, Braconid Wasp, (*Toxoneuron* sp)
- 3) Chalcididae, Chalcid wasp, (*Conura* sp)
- 4) Chrysididae (Cuckoo Wasp), (*Chrysis smaragdula*-group)
- 5) Crabronidae, *Astata* sp, possibly "*(Astata unicolor)*

6) Crabronidae, Beewolf wasp, (**Philanthus gibbos**)

7) Crabronidae, (Cerceris sp)

8) Crabronidae, Bicornuta Weevil Wasp, (Cerceris bicornuta)

9) Crabronidae, Eastern Cicada Killer, (Specius speciosus)

10) **Crabronidae, Mole Cricket Hunter, (Larra bicolor), tribe-Larrini (parasitoids of Mole Crickets)**

11) Crabronidae, Sand Wasp, (Bembix sp)

12) Crabronidae, Sand Wasps, (Bicyrtes quadrifasciatus)

13) Crabronidae, Square-headed Wasps (Liris sp)

14) Crabronidae, Square Headed Wasp (Tachytes crassus)

15) Crabronidae, Square Headed Wasp (Tachytes distinctus)

16) Crabronidae, Square-headed Wasps, (Oxybelus sp)

17) Ichneumonidae, Ichneumon Wasps (Anomalon sp)

18) Ichneumonidae, Ichneumon Wasps (Ceratogastra ornata)

19) Ichneumonidae, Ichneumon Wasps, Campopleginae subfamily

20) Mutillidae, Velvet Ant (Dasymutilla quadriguttata)

21) Mutillidae, Velvet Ants, (Timulla vagans)

22) Pompilidae, Spider Wasps, (Anoplius americanus trifasciatus)

23) Pompilidae - Spider Wasps, (Epsyron sp)

24) Pteromalidae, Chalcidoidea, Chalcid Wasp, (Pteromalus cassotis)

(parasitoid wasp attacks Monarch pupating larva in "J" state. Wasp but 3-5 mm long, 1/8" or less. (Being studied by University of Minnesota PHD student Carl Stenoien under Dr. Karen Oberhauser) Photographically documented at

Sparrow Field by Fitz Clarke and Dianne Siskin, 11/18/2013, FOC images 7144. 7151, 7156, 7160, 7162, 7184, 7200 7206, 7236

25)Scoliidae , Scoliid Wasps, (Campsomeris quadrimaculata)

26)Scoliidae, Scoliid Wasps, (Campsomeris plumipes)

27)Scolidae, Scoliid Wasp, Blue-winged Wasp (Scolia dubia)

28)Scoliidae, Scoliid Wasps, (Scolia nobilitata)

29)Sphecidae, Black & Yellow Mud Dauber (Sceliphron caementarium)

30)Sphecidae, Thread-waisted Wasps, Blue Mud Wasp, (Chaybion californicum)

31)Sphecidae, Thread-waisted Wasps (Ammophila pictipennis (Parasitoid of caterpillars)

32)Sphecidae, Thread-waisted Wasps, (Ammophila procera)

33)Sphecidae, Thread-waisted Wasps, (Eremnophila aureonotata)

34)Sphecidae, Thread-waisted Wasps, (Isodontia auripes) (Brown-legged Grass-carrier)

35)Sphecidae, Thread-waisted Wasp, (Palmodes dimidiatus)

36)Sphecidae, Thread-waisted Wasps, (Prionyx parkeri)

37)Sphecidae, Thread-waisted Wasps, (Spheg dorsalis)

38)Sphecidae, Thread-waisted Wasp, Great Black Wasp (Spheg pensylvanicus)
(Located and photographed by Peggy Lanahan)

39)Sphecidae, Thread-waisted Wasps , Great Golden Digger Wasp (Spheg ichneumoneus)

40)Sphecidae, Thread-waisted Wasp, Steel-blue Cricket Hunter (Chlorion aerarium)

- 41)Tiphiidae, Tiphiid Wasp, (*Myzinum* sp), parasitoids of white grubs (scarab larvae))
- 42)Tiphiidae, Tiphiid Wasp, (*Myzinum quinquecinctum*) (Five-banded)
- 43) Thynnidae, Thynnid Wasp (*Myzinum maculatum*)
- 44) Vespidae, Paper Wasp, (*Polistes bellicosus*) (notorious for locating and capturing Monarch larvae on milkweed plants to feed their young).**
- 45)Vespidae, , Potter and Mason wasp (Eumeninae), (*Pachodynerus erynnis*) (["http://bugguide.net/node/view/40398"](http://bugguide.net/node/view/40398))
- 46)Vespidae, Potter and Mason wasp (Eumeninae) (*Eumenes fraternus*)
- 47)Vespidae, Potter and Mason wasp (Eumeninae), (*Euodynerus hidalgo boreoorientalis*)
- 48)Vespidae, Potter and Mason wasp (Eumeninae), (***Monobia quadridens***)
- 49)Vespidae, Potter and Mason wasp (Eumeninae), (*Pachodynerus erynnis*) (["http://bugguide.net/node/view/40398"](http://bugguide.net/node/view/40398))
- 50)Vespidae, Potter and Mason wasp (Eumeninae), (*Parancistrocerus fulvipes*)
- 51)Vespidae, Potter and Mason Wasp (Eumeninae), (*Parancistrocerus perennis*)
- 52)Vespidae, Potter and Mason Wasp (Eumeninae), (*Parancistrocerus (histrion ?)*)
- 53)Vespidae, Potter and Mason Wasp (Eumeninae), (*Pseudodynerus quadrisectus*)
- 54)Vespidae, Potter and mason Wasp (Eumeninae), (*Zethus spinipes variegatus*)