# Future Insects 1-9:

# An Artificial Investigation into Pollution Evolution

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# Abstract

Pollution evolution expands on the Darwinian desire for survival of the species with the cynicism of understanding the presence of radiation and other toxins, both equally amongst different species and as randomly selected/ present genes. At the current rate of human progress, the majority of living systems will be destroyed and a new life will take its place. We can attempt to have a glimpse into said new life through the expansive concept of pollution evolution.

All of the insects have been rendered (or bred) using the online app "Ganbreeder". They are direct descendants of existing plants and insects, but, their DNA also includes pollution, debris, digital detritus, and human objects. By turning to AI technologies, I am attempting to imagine the world of flora and fauna in a post human landscape.

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# An Artificial Investigation into Pollution Evolution

The life cycle is such that the waste produced by an organism and that organism's own body, post-death, will return to the earth where it will become embedded in the next generation of genetic evolution. What happens when increasingly, plastics and chemicals are released into the wild and downloaded into evolutionary change itself? Gone are the days of normal Darwinian evolutionary models. Pollution evolution expands on the Darwinian desire for survival of the species with the cynicism of understanding the presence of radiation and other toxins, both equally amongst different species and as randomly selected/present genes. All organisms are so affected by the effects of pollution at a genetic and atomic level. Is pollution evolution just another hypothetical theory for a post-human future, or is it a viable and alternative framework for understanding our environmental impacts? When humanity no longer inhabits the natural plane, what does the rest of the ecosystem grow to look like? How does pollution evolution affect a rapidly changing biological future? At the current rate of human progress, the majority of living systems will be destroyed and a new life will take its place. We can attempt to have a glimpse into said new life through the expansive concept of pollution evolution.

# Method

## Participants

In order to further investigate the theory of pollution evolution and a post-human, future, ecological system; I partnered with a non-subjective system of hypotheticals and analytics, or an artificial intelligence system. Ganbreeder, now known as Artbreeder, is a visual, artificial intelligence system that takes the language of evolution and generational family lineages in order to function. This makes it the ideal partner to examine the potentiality of pollution evolution and its subsequent effect on the planet and life.

## Process

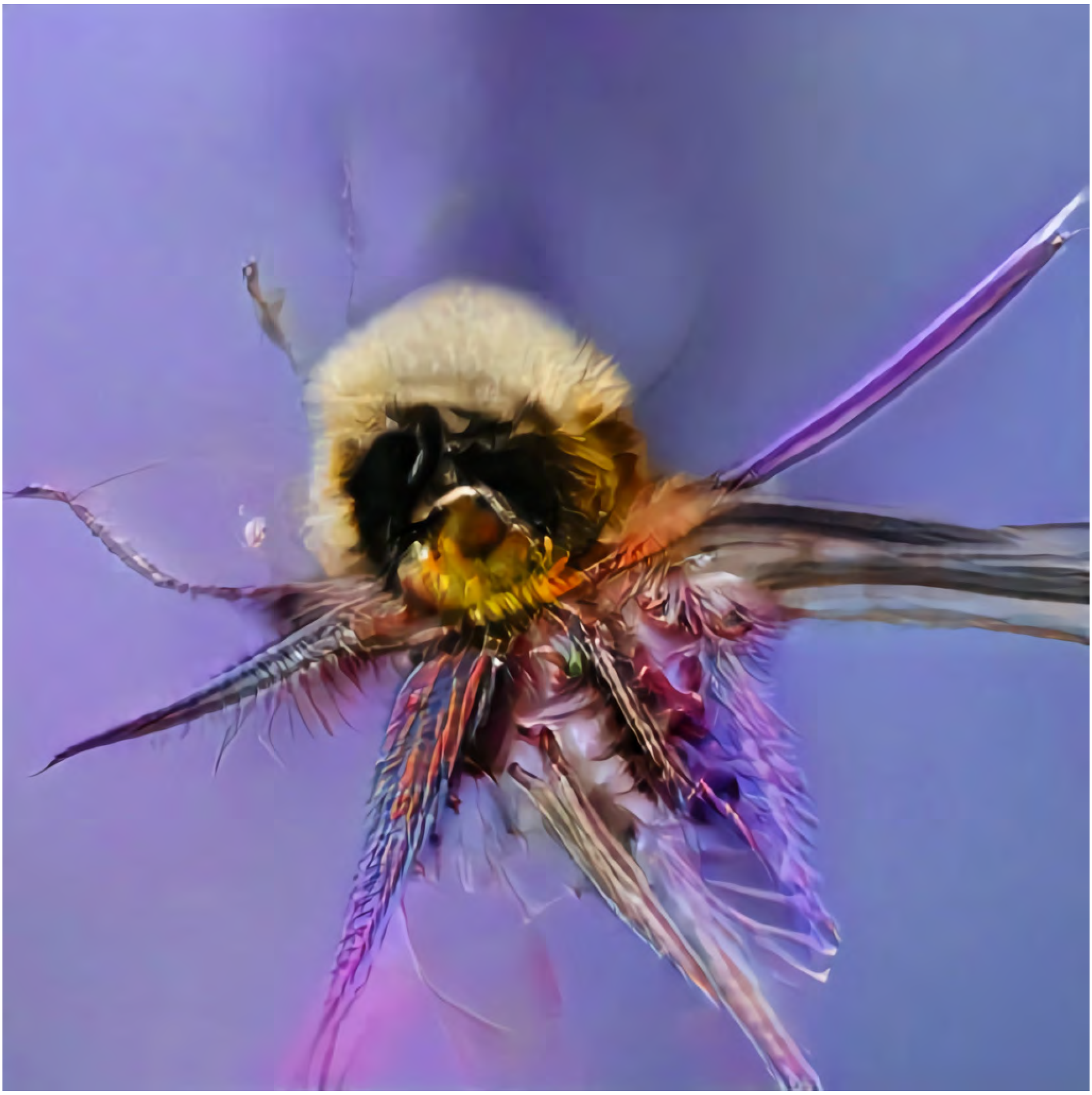
All of the insects have been rendered (or bred) using the online app "Ganbreeder". They are direct descendants of existing plants and insects, but, their DNA also includes pollution, debris, digital detritus, and human objects. By turning to AI technologies, I am attempting to imagine the world of flora and fauna in a post human landscape. The roaches and mealworms scour trash piles for sustenance, adding plastics and metals into their composition. The plants are then pollinated by these insects, they absorb water from radioactive soil and sunlight through thick smog. Everything has changed. Artificial Intelligence and other digital technologies can help give us an insight into how, and what this change may look like, through the digital eyes of logic and computational analysis.

Two different "parent" nodes are chosen in order to begin. From these two, different combinations of visual genetic information are compiled into offspring by the GanBreeder AI. At this point one offspring is chosen for the sake of the experiment and a new genetic node can be added if wanted. A new generation of offspring can then be bred/ generated.

As the number of generations increases, so do the chances that the genetic information present in the offspring will contain traces of human objects and pollution. Ganbreeder, as a way of understanding human error through the lens of machine, has also predicted that pollution evolution is an occurrence that will happen in the future if it hasn't already started to occur. It is my prediction that insects will be the strongest of the living creatures in terms of species survival for the adaptability.

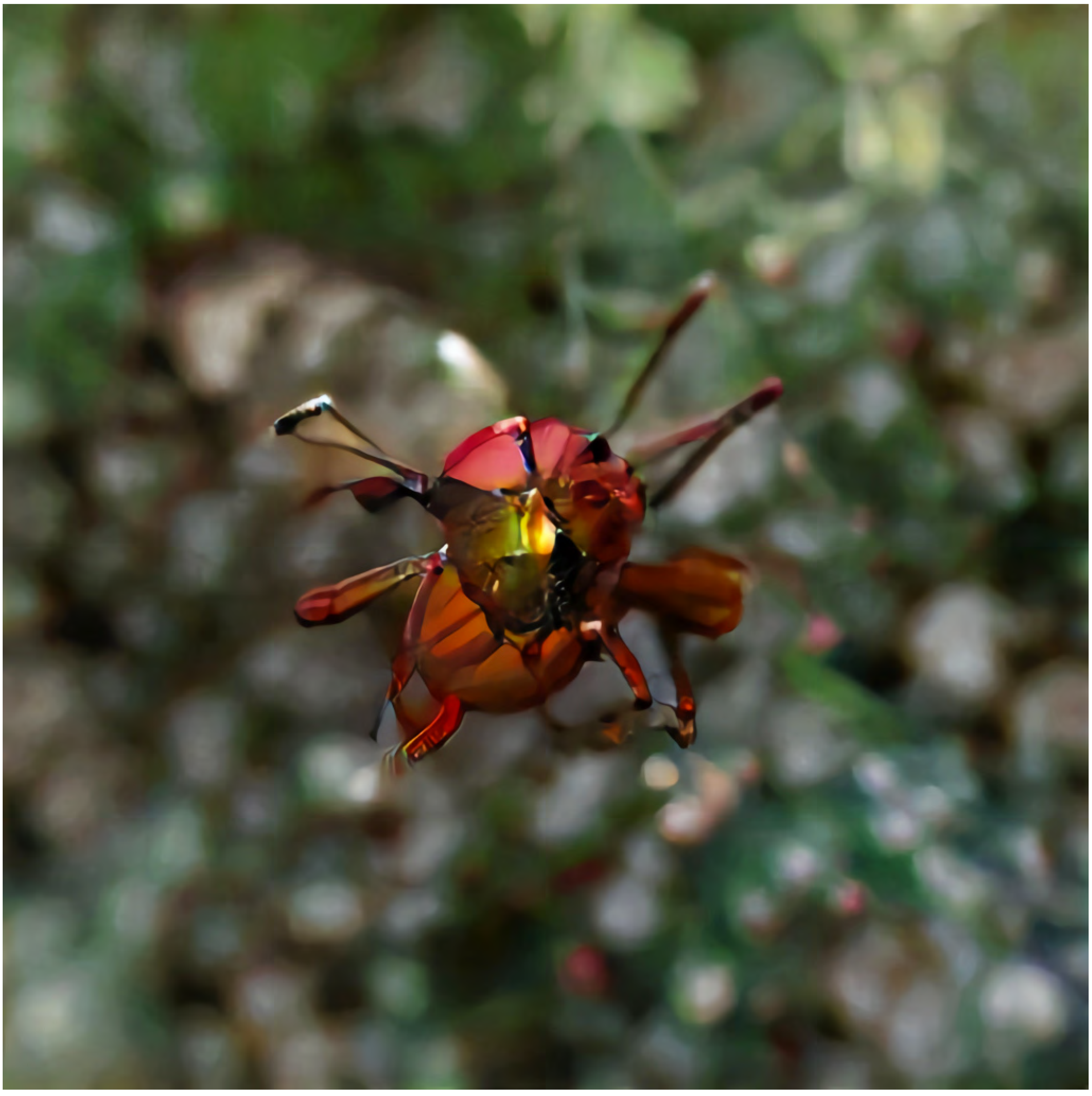
# Results

Future Insect 1



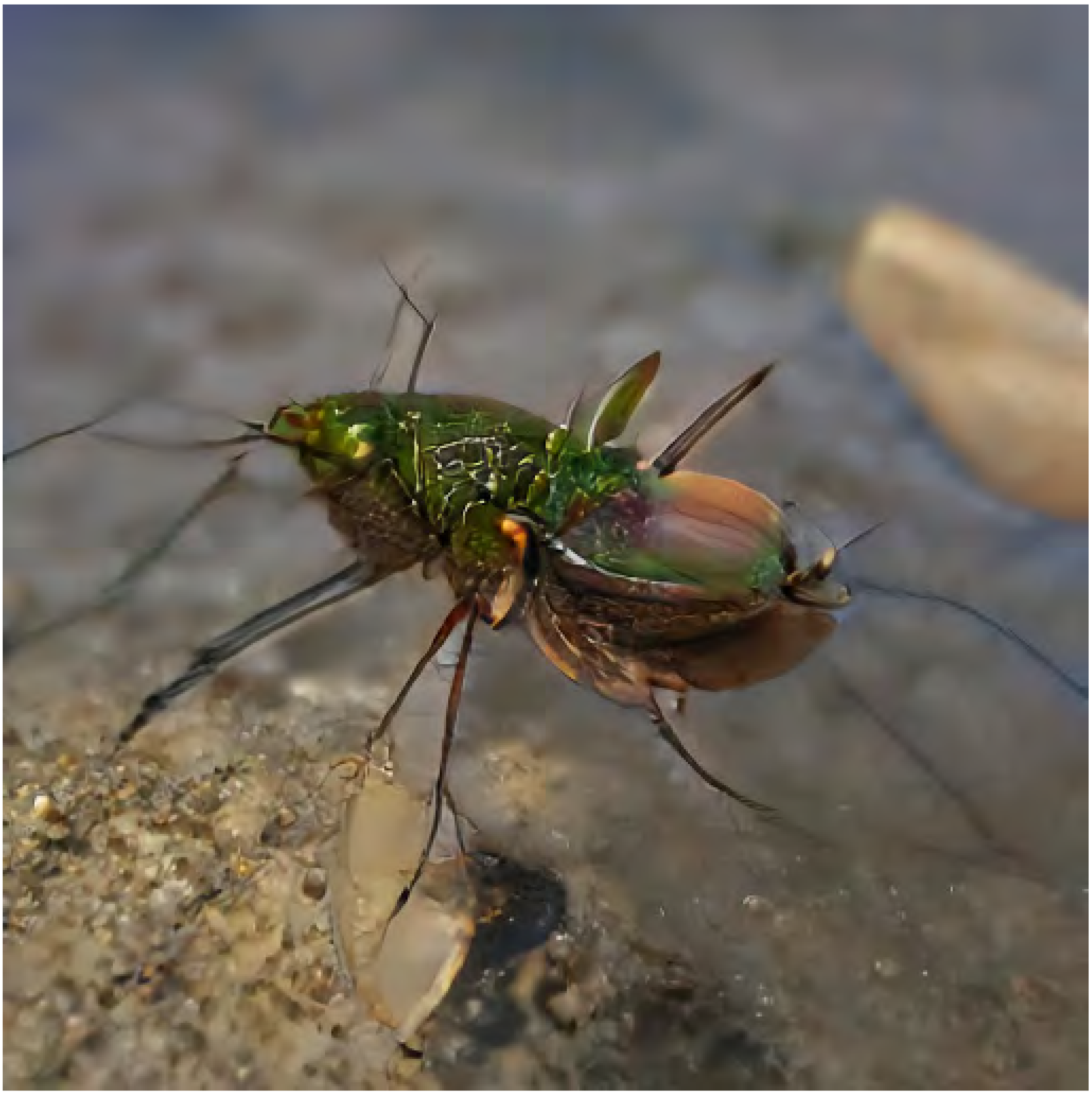
| | | |
|---|---|---|
| Bee = 0.8454 | Mousetrap = 0.0952 | Axolotl = 0.0378 |
| Bicycle built for two = 0.2570 | Hot pot = 0.0909 | Loggerhead = 0.0339 |
| Gown = 0.2296 | Jellyfish = 0.0901 | Drilling platform = 0.0337 |
| Wig = 0.1255 | Coral reef = 0.0826 | Digital watch = 0.0294 |
| Arctic fox = 0.1141 | Geyser = 0.0553 | |
| Chimpanzee = 0.1118 | Comic book = 0.0425 | |

# Future Insect 2



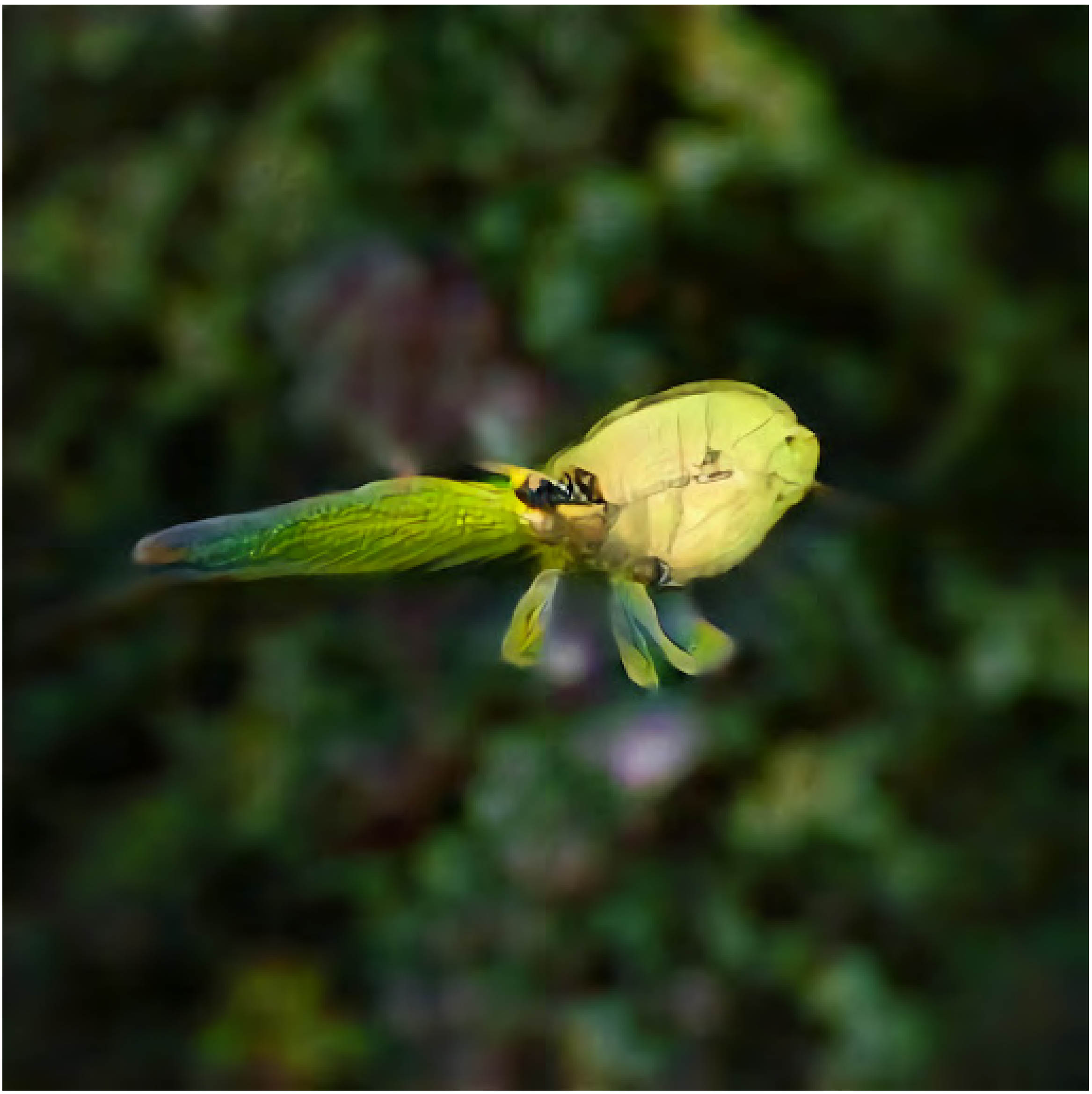
| | | |
|---|---|---|
| Pomegranate = 0.5955 | Sea cucumber = 0.1205 | Bicycle built for two = 0.0642 |
| Green snake = 0.5289 | Mantis= 0.1116 | Gown = 0.0614 |
| Tarantula = 0.2806 | Wig = 0.1029 | Gyromitra = 0.0594 |
| Maillot = 0.2425 | Espresso maker = 0.0725 | Computer keyboard = 0.0505 |
| Bee = 0.2367 | Geyser = 0.0695 | |
| Jellyfish = 0.1625 | Drilling platform = 0.0687 | |

# Future Insect 3



| | | |
|---|---|---|
| Gyromitra = 0.4955 | Green snake = 0.1972 | Mixing bowl = 0.0825 |
| Jellyfish = 0.4070 | Drake = 0.1617 | Badger = 0.0535 |
| Drilling platform = 0.3992 | Black widow = 0.1522 | Space shuttle = 0.0492 |
| Leatherback turtle = 0.3480 | Tarantula = 0.1081 | Sea cucumber = 0.0425 |
| Mantis = 0.3261 | Maillot = 0.0934 | |
| Pomegranate = 0.2269 | Bee = 0.0885 | |

# Future Insect 4

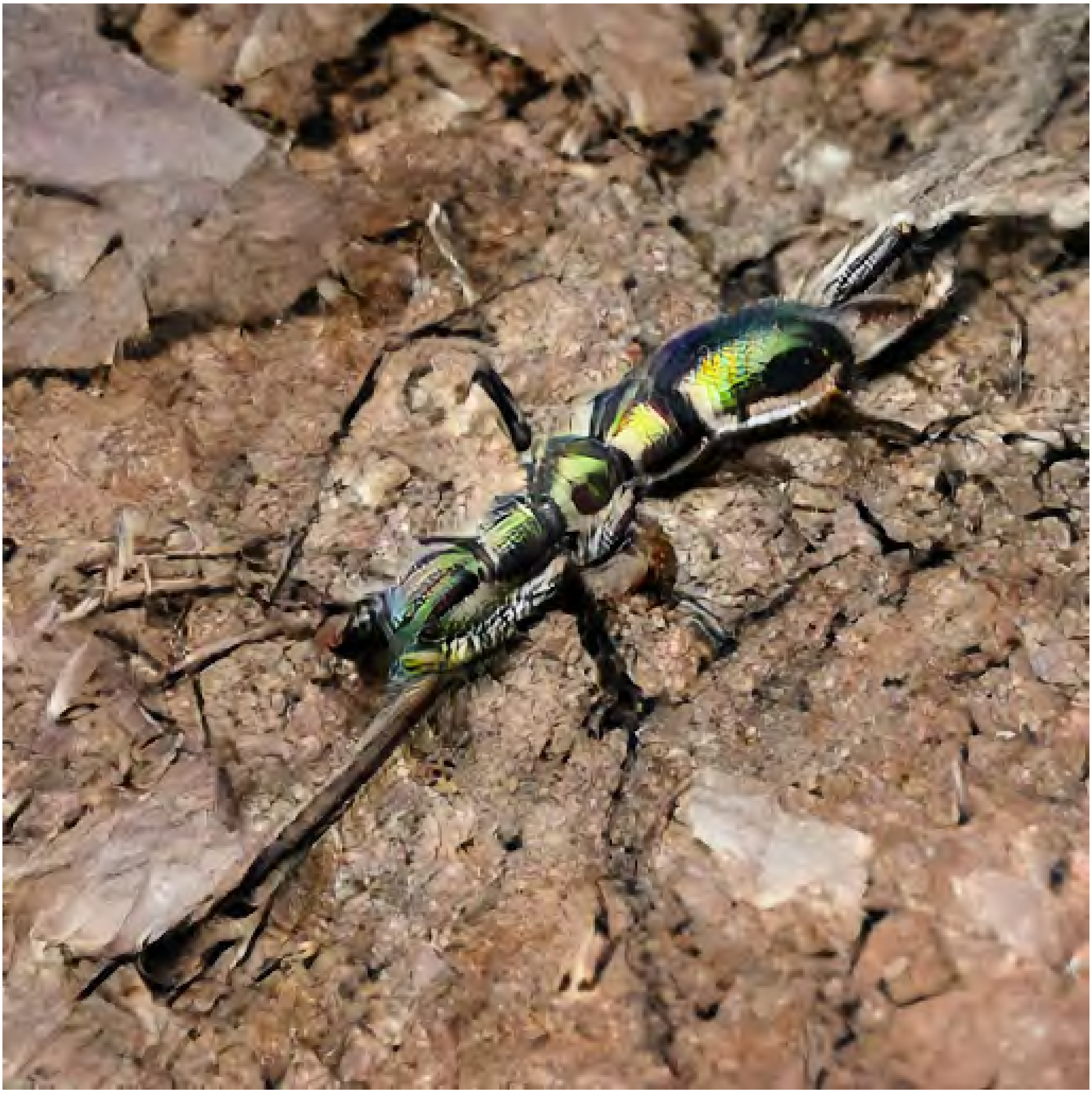


| | | |
|---|---|---|
| Vine snake = 0.6077 | Daisy = 0.2239 | Sunscreen = 0.0301 |
| Bonnet = 0.4218 | Green snake  = 0.2216 | Peacock = 0.0250 |
| Oxygen mask = 0.2291 | Little blue heron = 0.2196 | Plunger = 0.0235 |
| Gyromitra = 0.2262 | Pineapple = 0.0586 | |
| Jellyfish = 0.2242 | Garden spider = 0.0583 | |

# Future Insect 5

| | | |
|---|---|---|
| Common iguana = 0.6401 | Maillot = 0.1432 | Black widow = 0.0363 |
| Pomegranate = 0.5061 | Jellyfish = 0.100 | Cabbage butterfly = 0.0299 |
| Leatherback turtle = 0.3532 | Mantis = 0.0841 | Tarantula = 0.0260 |
| Mixing bowl = 0.2449 | Gyromitra = 0.087 | Church = 0.0206 |
| Corn = 0.2142 | Green snake = 0.0476 | |
| Drilling Platform = 0.1757 | Drake = 0.0412 | |

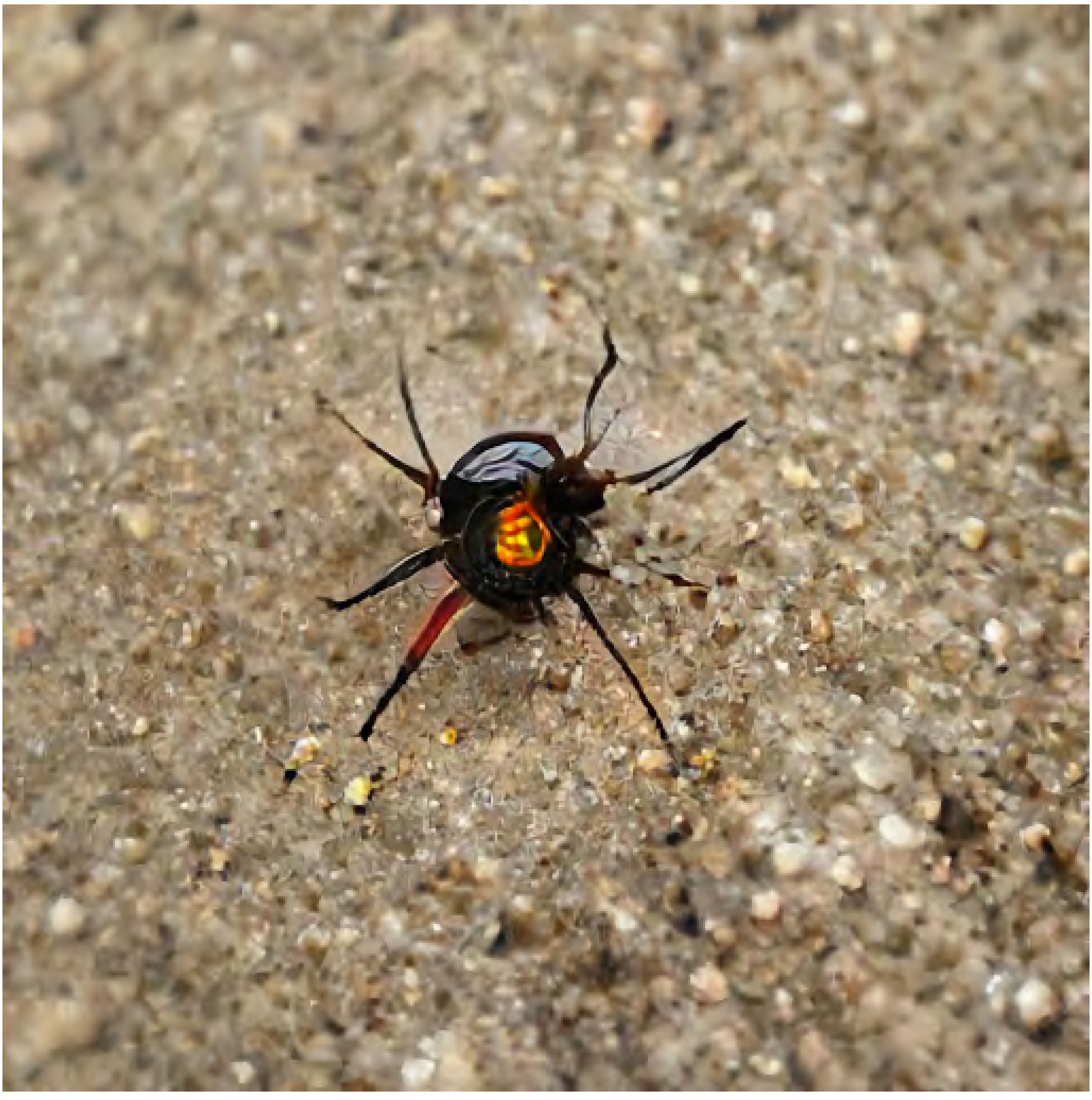
# Future Insect 6



Green snake = 0.7721

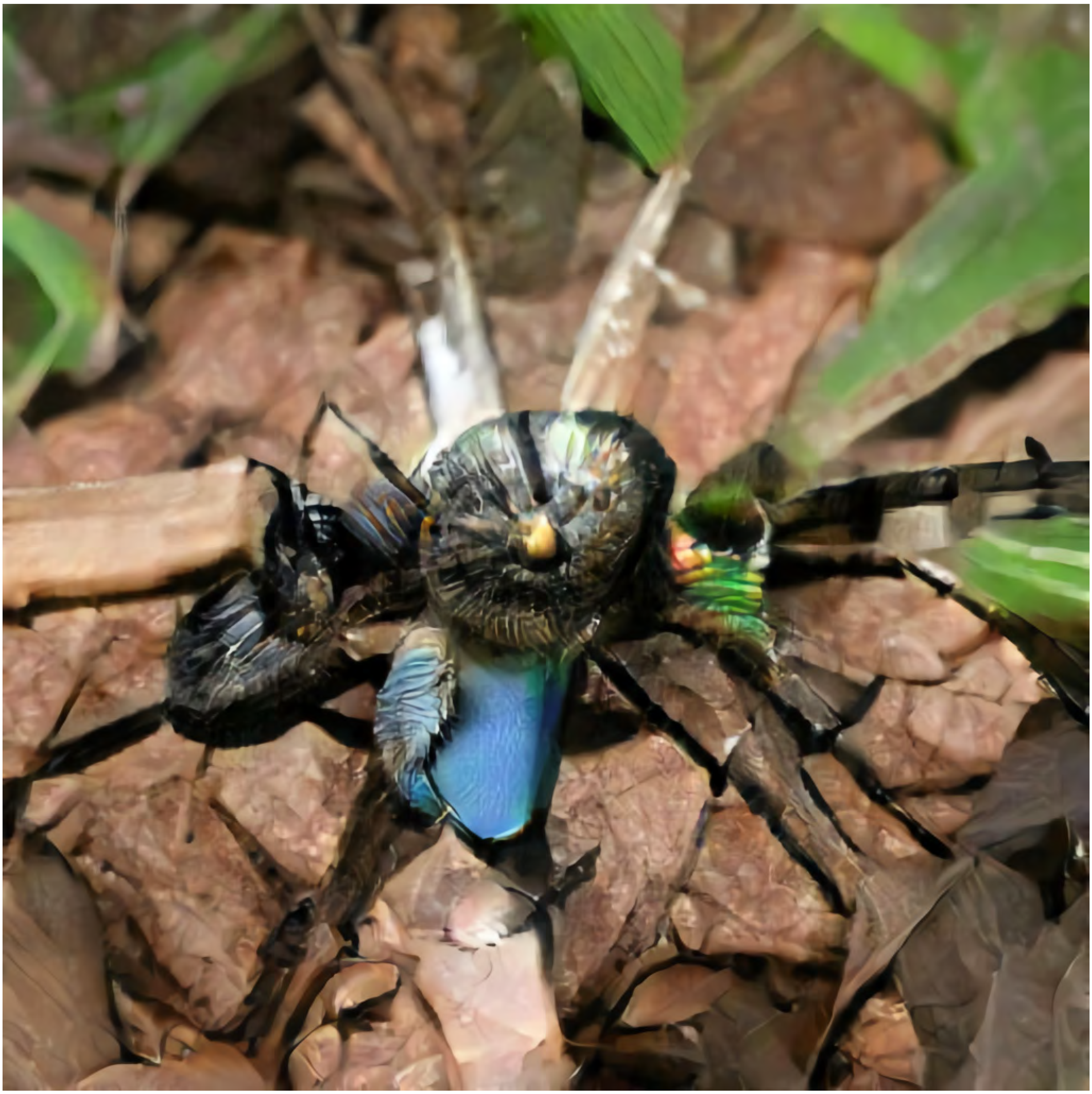
Tarantula = 0.6211

# Future Insect 7



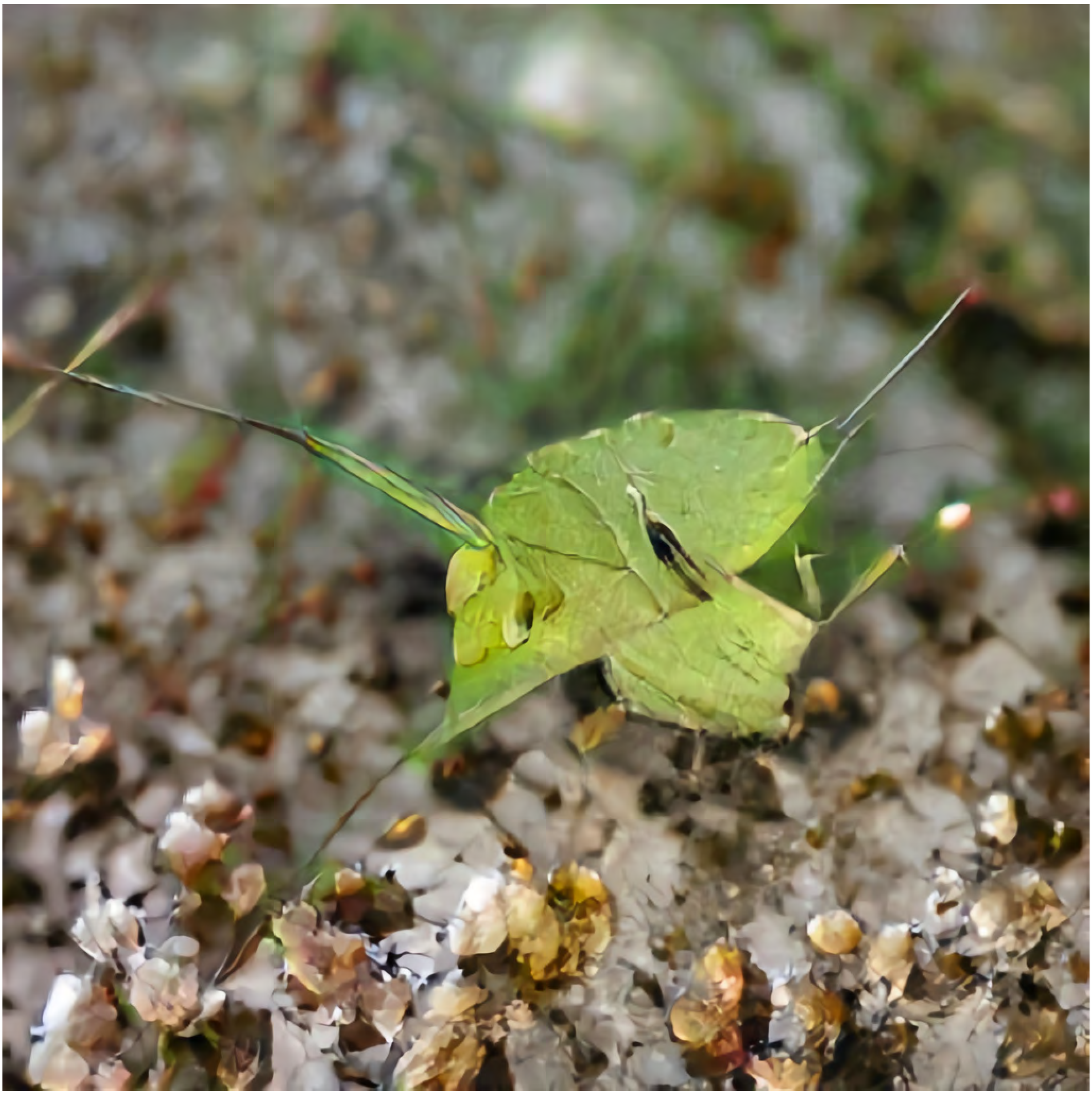
| | | |
|---|---|---|
| Black widow = 0.3500 | Bee = 0.1353 | Geyser = 0.0397 |
| Pomegranate = 0.3403 | Jellyfish = 0.0929 | Drilling platform = 0.0392 |
| Green Snake = 0.3022 | Sea cucumber = 0.0689 | Bicycle built for two = 0.0367 |
| Drake = 0.2455 | Mantis = 0.0638 | Gown = 0.0351 |
| Tarantula = 0.1603 | Wig = 0.0588 | |
| Maillot = 0.1386 | Espresso maker = 0.0419 | |

# Future Insect 8



| | |
|---|---|
| Green snake = 0.7610 | Polaroid camera = 0.0573 |
| Tarantula = 0.6121 | Acorn squash = 0.0387 |
| Daisy = 0.1412 | Refrigerator = 0.0370 |
| Gyromitra = 0.1082 | |

# Future Insect 9



| | | |
|---|---|---|
| Cabbage butterfly = 0.5983 | Drilling platform = 0.1041 | Black swan = 0.0469 |
| Mantis = 0.5963 | Cockroach = 0.0867 | Face powder = 0.0292 |
| Common iguana = 0.3758 | Maillot = 0.0847 | Green snake = 0.0282 |
| Leatherback turtle = 0.2065 | Jellyfish = 0.0558 | Drake = 0.0221 |
| Mixing bowl = 0.1433 | Gyromitra = 0.0515 | |
| Corn = 0.1262 | Handkerchief = 0.0495 | |

# Discussion

Pollution evolution, there's no going back now.

# References

Simon, Joel. "Artbreeder." Artbreeder, 2019, artbreeder.com

Merino, Ketty Zi. Designer, 2019, @kettyzi.
Fonts in use: AT Apoc Revelations,
Neue Machina.