Nature's Wonders Mantises Extras
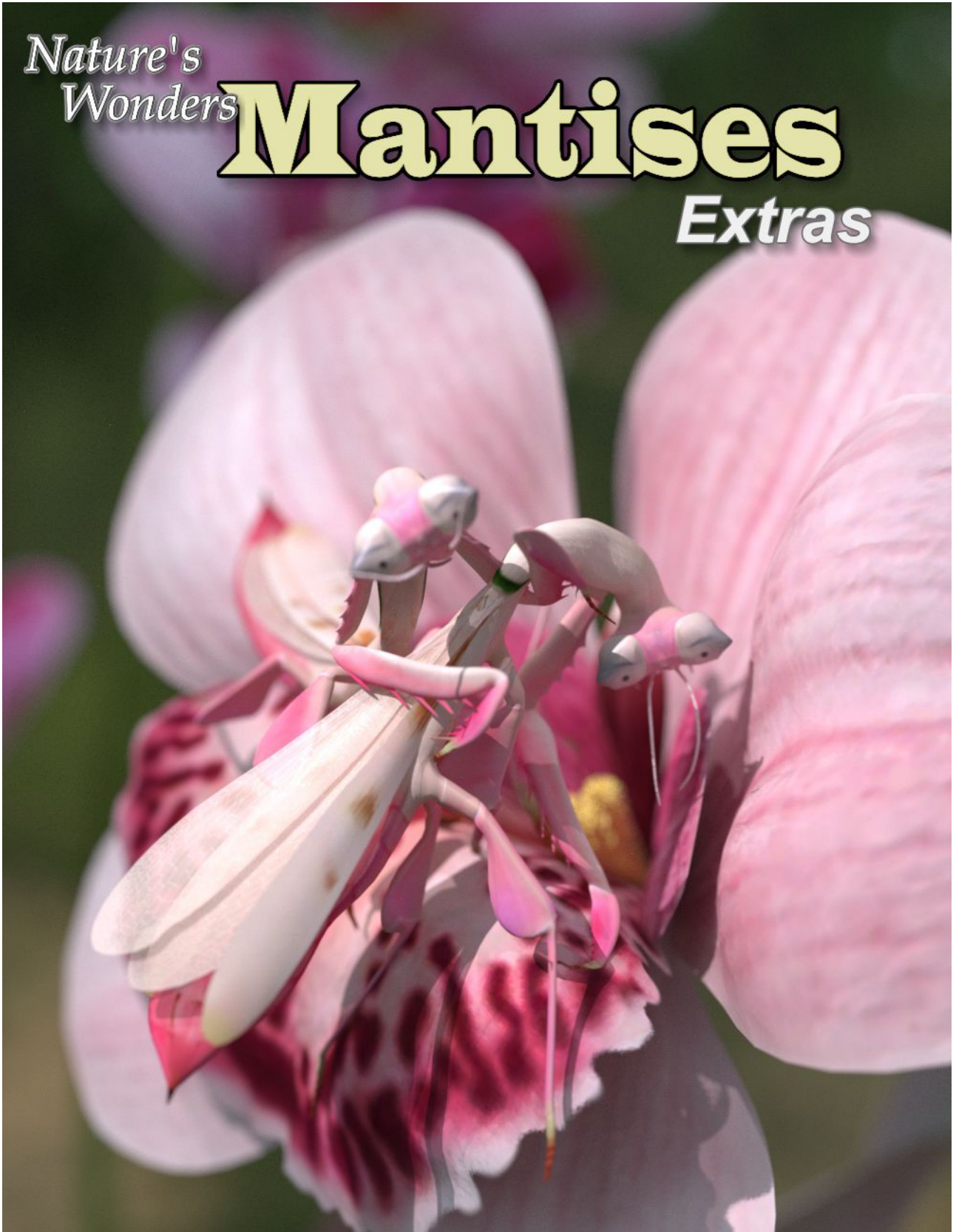
3D model set by Ken Gilliland

Nature's Wonders

Mantises

EXTRAS

Introduction

Mantises are in the order, Mantodea, of insects which contains over 2,400 species in about 460 genera in 33 families. Mantises are distributed worldwide in temperate and tropical habitats. They have triangular heads with bulging eyes supported on flexible necks. Their elongated bodies may or may not have wings, but all Mantises have forelegs that are greatly enlarged and adapted for catching and gripping prey. Their upright posture, while remaining stationary with forearms folded, has led to the common name of "praying" mantis.

This set was designed to supplement the existing Nature's Wonders sets in two specific areas; habitat and feeding. The set includes three variations on an orchid for the Pink Orchid Mantis (from Mantises of the World Volume 1) to reside on. The orchid model includes over 25 shaping morphs which allow stem bending, leaf shaping, and much more. Also is included a mantis headless body and head model. These two models have full material and shaping support for all the species of mantis included in the Nature's Wonders Mantis Base Set and Volume 1. Four new poses are included; a drooped headless body, a severed head on its side and a paired predator/prey feeding pose. Both models use the same coding from the original Mantis model so all existing poses will work, and vice versa.

It comes in both Poser and DAZ Studio native versions and support Firefly, 3Delight, Superfly and Iray render engines.

NOTE: This set requires the previous purchase of Nature's Wonders Mantises. Nature's Wonders Mantises of the World Volume 1 is required for use of species contained in that volume.

Overview and Use

This set uses a common model to recreate digitally the lizard species included in this volume. Each species uses specific morphs from the generic model to single-out its unique features.

- **Models included in this volume:**
  - **Mantis-Headless and Head Only versions**
  - **Orchid**

The set is located within the **Animals : Nature's Wonder** folder. Here is where you will find a number of folders, such as **Manuals, Resources** and **Fauna Libraries**. Let's look at what is contained in these folders:

- **Fauna Libraries:** This folder holds the actual species and poses for the "premade" fauna. The fauna for this set can be found in the following folder(s):
    - **Insects/Mantises of the World**
- **Manuals:** Contains a link to the online manual for the set.
- **Props:** Contains any props that might be included in the set

Creating a Specific Mantis using Poser

1. For this example, we'll create a headless Carolina Mantis.

2. Load Poser, select the FIGURES library and go to the "Animals", "Nature's Wonders" and then the Nature's Wonders Fauna Libraries Insects folder.

3. Go to the Mantises of the World Props folder and select the Firefly or Superfly sub-folder.

4. Select the Headless Mantis and then go to the materials subfolder and select Carolina Mantis (or a Mantis of your choice) and load it by clicking the mouse. It will automatically turn the generic mantis into the specific species giving it the proper texture and sizing. The materials pose will work for both the head only and headless models.

Creating a Specific Mantis using DAZ Studio

1. For this example, we'll create a headless Carolina Mantis.

2. Load DAZ Studio and go to the "Animals", "Nature's Wonders" and then the Nature's Wonders Fauna Libraries Insects folder.

3. Go to the Mantises of the World folder and select the Iray or 3Delight sub-folder.

4. Select the Headless Mantis and then go to the materials subfolder and select Carolina Mantis (or a Mantis of your choice) and load it by clicking the mouse. It will automatically turn the generic mantis into the specific species giving it the proper texture and sizing. The materials pose will work for both the head only and headless models.

Using the Poses

The poses were designed for the default model. The base or "hip" section of the model is MetaThorax1. Since different individual species may use body scaling, it may alter the expected ground level of the species model. Some adjusting may be necessary (e.g. the "ytran" dial may need to be used to raise or lower the model).

In the paired poses, the "dead" mantis will rarely be spot on because it was

designed for the default base model.   All species models have subtle changes such as different sizing, longer forelegs and torso lengths. Some minor to moderate corrections will almost always be required.

Wings and Torso Bending

There's likely to be some overlap issues with the wings and bending the lower half of the torso.   The problem arises from having a bendable torso with a relatively linear appendage such as wings.   I've tried to resolve the issue by chopping the wings into 9 or 10 body parts and adding in hidden controls that bend the wings with the torso.   It helps, but the more you bend the torso the more likely additional manual corrections will be needed as well.

There are a set of 4 corrective dials with the "Adjustment Controls" section that should help correct most issues.

Posing Tricks

Posing a mantis on a plant can be challenging so here's some tips to help make the process easier:

- Use Wire Mesh or Untextured Solid preview mode… this will help you align the legs with the plant/flower/twig.

- Once you have the Insect in the right general location, refine the movement.   Go in the X-Y-Z Trans parameter dial settings and change the precision of the dial (nudge in DAZ Studio; Sensitivity in Poser). That movement are generally set to "1" by default, trying changing them to "0.1". This will give you the added precision in moving the insect to that twig, leaf or flower petal.

Special Thanks to…

….my betatesters Alisa and FlintHawk

Species Accuracy and Reference Materials

The author-artist has tried to make these species as accurate to their real life counterparts as possible. Phasmids of the same species vary considerably, as do all other animals in nature. These Phasmids were created using the correct field markings and the most common similarities.

With the use of one generic model to create dozens of unique Phasmid species, some give and take is bound to occur. In addition, 3D-models have many technical challenges, which make exact representations difficult, if not impossible.   It's best to think of these Phasmids represented as resembling the particular species, and they may not, in some cases, be 100% scientifically accurate.

The model and morphs were created using Luxology's Modo. The texture maps were created in Corel's Painter.   The model was rigged and materials were created in Smith-Micro's Poser and DAZ's DAZ Studio.

Internet Sources:

- **Wikipedia** (http://www.wikipedia.com)
- **USMantis** (https://www.usmantis.com)
- **North Carolina State University** (https://entomology.ces.ncsu.edu/biological-control-information-center/beneficial-predators/carolina-mantid/)
- **Mantis Universe** https://www.mantisuniverse.com/