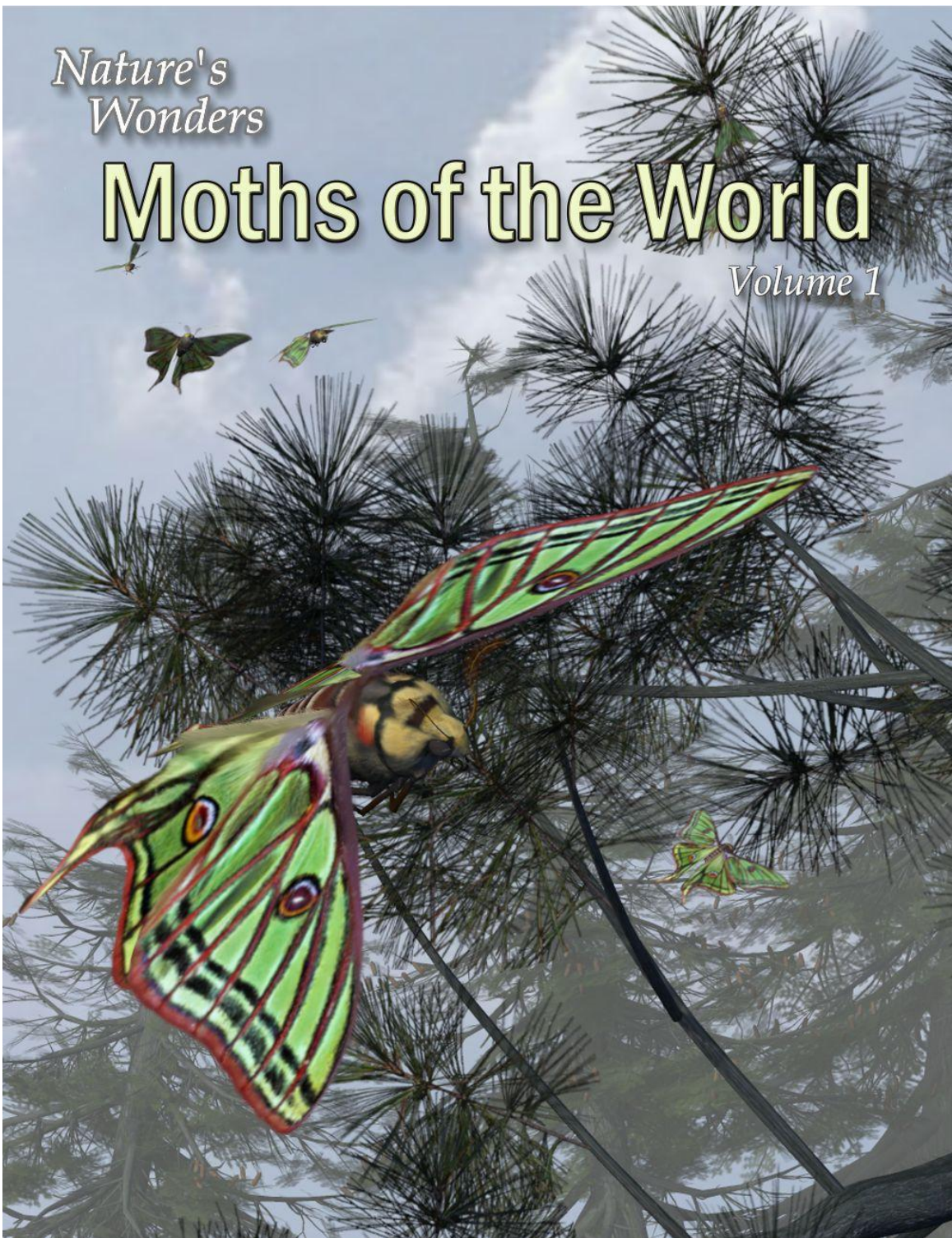


*Nature's
Wonders*

Moths of the World

Volume 1



by Ken Gilliland

Nature's Wonders

Moths of the World

Volume 1

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Nature's Wonders

Moths of the World

Introduction

Moths comprise a group of insects related to butterflies, belonging to the order Lepidoptera. Enormous “bird-sized” moths are often called “Giant Moths”. While not all of the 8 moths in this set are “Giant Moth” types, many are and this set includes one of the largest moths in the world, the Hercules Moth with a wingspan of 270 mm (10.6 inches). Small moths, such as the Leopard and Tiger Moths as well as the Spanish Moon Moth, make up for their lack of ‘giantness’ with spectacular wing patterns, which outshine even the most popular butterflies.

Overview and Use

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/Moths 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
- **Resources:** Items in this folder are for creating and customizing your fauna included in the set
 - **... Based Models:** This folder has the blank, untextured model(s) used in this set. These models are primarily for users who wish to experiment with poses or customize their own species. When using physical renderers such as Iray and Superfly, SubD should be turned to at least “3”. For DAZ Studios 3Delight renders, the SubD must be turned from the “High Resolution” setting to the “Base” setting (otherwise some areas will render incorrectly transparent).

Loading a Moth using Poser

1. For this example, we'll create the Luna Moth.
2. Load Poser, select the FIGURES library and go to the "Animals", "Nature's Wonders" and then the Nature's Wonders Fauna Libraries Insect folder.
3. Go to the Moths of the World folder and select the Firefly or Superfly sub-folder.

4. Select the Luna Moth (or a moth of your choice) and load the model clicking the mouse.

Loading a Moth using DAZ Studio

1. For this example, we'll create the Luna Moth.
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 Moths of the World folder and select the Iray or 3Delight sub-folder.
4. Select the Luna Moth (or a moth of your choice) and load the model clicking the mouse.

Sizing & Poser Issues

All the moths included in this set have been scaled to their appropriate sizes in relation to human figure models. In some cases, these moths can be very, very small with a wingspan of around one-inch.

The size of the moths can produce some issues in Poser. The moth may disappear when the camera is in close focus. The "hither" setting on Poser's cameras is set to 0.800 by default. Reducing this setting to "0.0" will correct this issue.

A second issue can appear when rendering a small moth solely (without any other items in the scene). It will produce a default square shadow. It is a known bug with Poser. To correct this issue, include a second larger item off-screen and the shadows will render correctly.

Subsurface scattering does allow some translucency in the moth wings, but does add to render time. Non-Subsurface Scattering shaders have been included in the materials section for Poser users who cannot use SSS (Poser 8 and below) or who prefer not to use this effect. These alternative material settings must be applied **AFTER** the .pz2 (Material/Morph) pose is applied as it properly shapes the generic moth into the selected species.

Garden Tiger Moth (*Arctia caja*)

It has a wingspan of 45-65 mm (1.8-2.6 inches) and is found throughout much of the Palearctic, in Europe as far north as Lapland, in Northern Asia and Central Asia, and in North America. This nocturnal moth loves damp places, which is why it is particularly common in river valleys as well as gardens and parks. These moths are most common in June to August. The caterpillar of the garden tiger moth feeds on various kinds of non-woody plants, as well as bushes and trees. It is especially fond of raspberry, blackberry, viburnum, honeysuckle, erica, and broom. The garden tiger moth is protected in the UK under the Biodiversity Action Plan. Its numbers in the UK have declined by 89% over the past 30 years.



One-eyed Sphinx Moth (*Smerinthus cerisyi*)

It has a wingspan of up to 95 mm (3.7 in). It's range is from south-eastern Alaska, the southern parts of all Canadian provinces and in the northern border states of the United States, southward into northern Indiana, Pennsylvania and Ohio. It is also found along the west coast to southern California, eastward to the Rocky Mountains and into western New Mexico, northwards to western North Dakota. The larvae feed on Willow (*Salix*) and Poplar (*Populus*).



Small Elephant Hawkmoth (*Deilephila porcellus*)

The wingspan is 45–51 mm (1.8–2.0 in). It is found in Europe, North Africa and Western Asia. In European coastal areas it is seen in heaths and meadowland edges where *Galium* is present. It lives at altitudes of up to 1600m in the Alps and Spain, but in North Africa and Turkey it is found up to 2000m. In central Iran and Central Asia, it inhabits open, arid montane forest or scrub. Usually found at 2000 to 2500 m. The larvae feed on *Galium* and *Epilobium*.



Spanish Moon Moth (*Graellsia isabellae*)

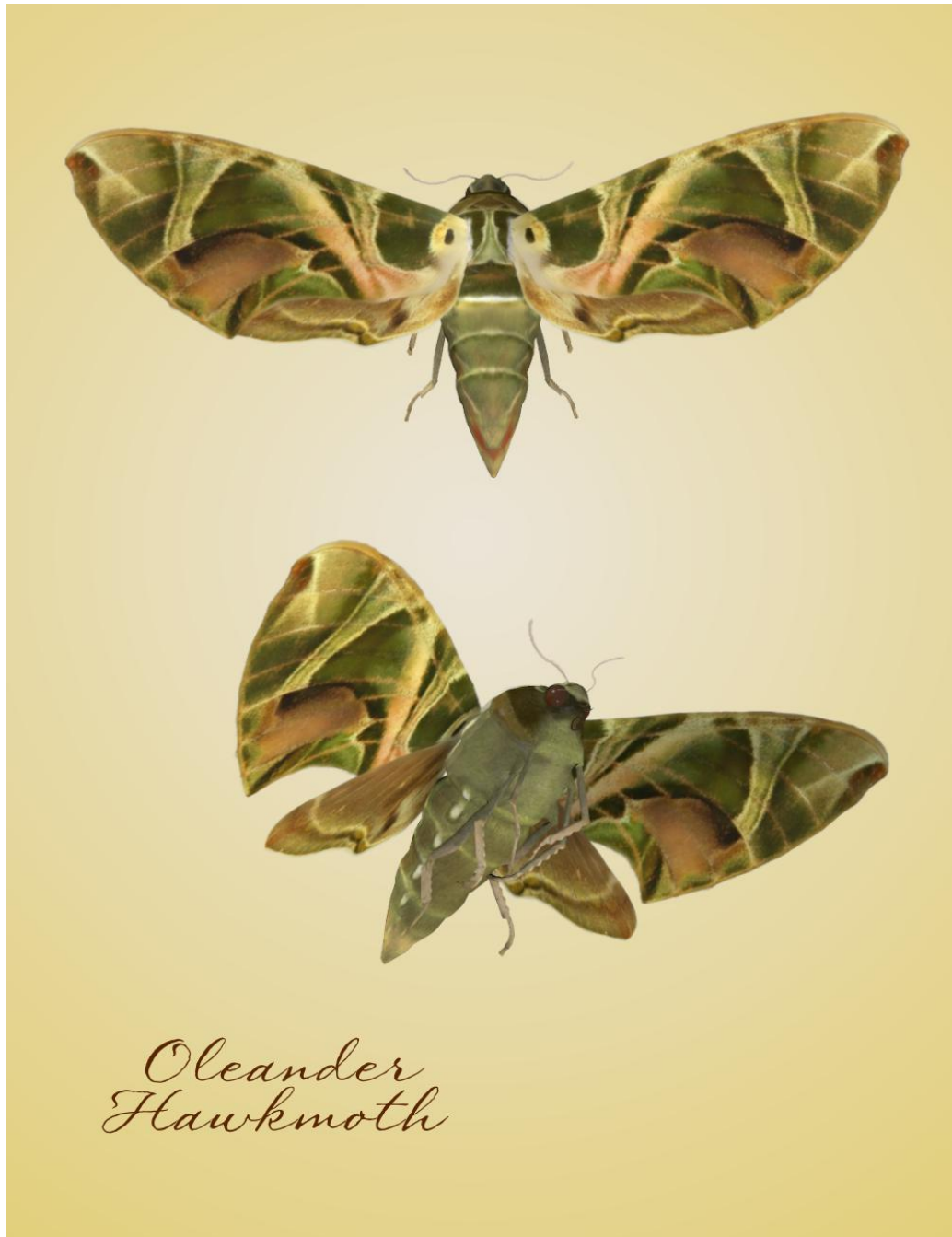
It has a wingspan of up to 83 mm (3.3 inches). The moth is endemic to Spain and France. This moth primarily eats the needles of pine trees (*Pinus*). It appears to have difficulty adopting non-native pine species as a host even within the *Pinus* genus.



Oleander Hawkmoth (*Daphnis nerii*)

It has a wingspan of up to 120 mm (4.7 inches). It is found in wide areas of Africa and Asia. It is a migratory species, flying to parts of eastern and southern Europe during the summer, particularly to Turkey. The adults feed on nectar of a great variety of flowers. They have a preference for fragrant species like petunia, jasmine and honeysuckle. They are especially active in the twilight time, hovering over the flowers after sunset.

The caterpillars feed mainly on oleander (*Nerium oleander*) leaves, a highly toxic plant, to which the caterpillars are immune.



Regal Moth (*Citheronia regalis*)

It has a wingspan of 95 to 155 mm (3.7 to 6.1 inches). It is considered a common species in the Deep South, becoming rarer and more sporadic northward. It is found throughout the deciduous forests in the United States from Missouri to Massachusetts and southward from Texas to central Florida. They favor nut trees such as walnuts and hickories (*Juglans* and *Carya*).



Hercules Moth (*Coscinocera hercules*)

It has a wingspan of 270 mm (10.6 inches). It is endemic to New Guinea and northern Australia. The larvae feed on Celery wood (*Polyscias elegans*), cheese tree (*Glochidion ferdinandi*), Pink Mahogany (*Dysoxylum oppositifolium*), Black Cherry (*Prunus serotina*) and Timon Tree (*Timonius timon*)



Giant Leopard Moth (*Hypercompe scribonia*)

It has a wingspan of 76 mm (3 inches). It is distributed throughout southern Ontario, and the southern and eastern United States from New England to Mexico. Adult moths are strictly nocturnal and do not generally fly before nightfall. The caterpillar eats a variety of broad-leaf plants such as broadleaf plantains, dandelions and violets.



Special Thanks to...

....my betatesters (FlintHawk)

Species Accuracy and Reference Materials

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

With the use of one generic model to create dozens of unique moth 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 moths 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 in Smith-Micro's Poser 2014 and materials created in Smith-Micro's Poser 2014 and DAZ's DAZ Studio.

Internet Sources:

- **Wikipedia** (<http://www.wikipedia.com>)
- **Pacific Northwest Moths** (<http://pnwmoths.biol.wvu.edu/>)
- **Butterflies and Moths of North America** (<http://www.butterfliesandmoths.org>)

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