HUNTING DRAGONS: PHOTOGRAPHING OHIO’S DAMSELFLIES AND DRAGONFLIES

Jim McCormac
Columbus, Ohio
http://jimmccormac.blogspot.com/
To become a better dragonfly photographer, learn more about dragonflies.
Striped Saddlebags
*Tramea calverti*
Blue-faced Meadowhawk
*Sympetrum ambiguum*
Dragonfly photography can be easy or hard, depending upon the subject.
Advantages to better dragonfly photos?

- Better show details of insect
- Aid in identification
  - Especially important in photo-based data project
- Create Art
  - Dragons and damsels amongst our showiest insects
- “The Book”!!
Tech Stuff
Cameras
Advantages of SLR over P & S

- Bigger better sensors
- Capture much more data
- Sharper, more detailed images with better color resolution
- Much better focus, both speed and versatility
- Great variety of available lenses
- Can create fantastic backgrounds (bokeh)
Kenko extension tubes
Camera setup

- Save images at highest resolution
  - RAW, ideally, but at least the highest JPEG setting
    - provides greatest detail
    - greater options in post-processing
- Activate highlight alert “blinkies”
- Use light histogram
- Push exposure to the right
  - just to the edge of the “blinkies”
Highlight alert: Enable
AF point disp.: Disable
Histogram: Brightness
Slide show: Image jump w/ 10 images

The flashing black areas are alerting me that these highlights are overexposed and will lose detail.

Notice how the histogram is pushed up against the right side of the image.
Learn to shoot in Manual Mode
Macrophotography is often a four-legged stool

- ISO
- Aperture
- Shutter Speed
- Flash
ISO – Digital Film Speed
(International Organization for Standardization)

- ISO 100 is ideal (least noisy)
- Higher the ISO, grainier the image
- Lower ISO always better
- Especially when cropping
- Better the camera, better the ISO quality
Panasonic FZ-30
f/3.6
1/30
ISO-80
No Flash

Shutter speed
Snowberry Clearwing
Hemaris diffinis

Canon 5D Mark III
f/3.2
1/5000
ISO-1250
No Flash
Aperture, or F-stop

- F-stop = ratio of lens’ focal length to diameter of entrance pupil
- Smaller apertures create greater depth of field
- Larger apertures produce less depth of field
- F-stop numbers are counterintuitive
- Greater the F-stop number, the smaller the aperture (more depth of field)
- Smaller the F-stop number, the larger the aperture (less depth of field)
Canon 5DS-R and 200mm
f/2L
ISO 200
1/125
f/2
Canon 5DS-R and 200mm
f/2L
ISO 200
1/50
f/2.8
Canon 5DS-R and 200mm
f/2L
ISO 200
1/25
f/4
Canon 5DS-R and 200mm
f/2L
ISO 200
1/6
f/8
Canon 5DS-R and 200mm
f/2L
ISO 200
1/3
f/11
Bird’s-eye Primrose

*Primula mistassinica*

Canon 5D Mark III

f/2.8

1/1000

ISO-100

No Flash
Bird’s-eye Primrose
*Primula mistassiniaca*

Canon 5D Mark III
f/32
1/200
ISO-100
No Flash
Good default macro settings*

*without flash

- ISO 200 to 500 (max 800, if possible)
- f/8 to f/11
- Shutter speed at least 1/500 and better at 1/1000 and up
Good General Settings*  
*with flash

- f/11 to f/16
- ISO 100 to 200
- 1/200 (or 1/250)*
  - *shoot at sync speed
Appalachian Brown

Canon 5DS-R and 100mm f/2.8 macro
ISO 100
f/11
1/200
Flash
Advantages of Flash

- Best dragon/damsel activity often during “high noon”
- Sun is bright and contrasty – flash reduces impact of ambient lighting
- Flash evens out lighting
- Fills in shadowed areas
- Freezes movement – equates to several thousands of a second shutter speed
Hard (impossible?) to do this without flash
Good *bokeh* is smooth and pleasing, whereas bad *bokeh* produces a jagged and discordant effect. ... The quality of *bokeh* is largely dependent on the construction of the lens. For this reason, lenses that provide high-quality *bokeh* are prized.

—Harold Davis
Creating black backgrounds

- Largely independent of ambient light
- Must not have objects within several feet (at least) behind subject
- Flash
- f/11 to f/16
- ISO 100 to 200
Hit the eye!
Focus Grid

Activate

Toggle
Get on your subject’s level!
Thank You and Happy Dragon-hunting!

Jim McCormac
Columbus, Ohio
http://jimmccormac.blogspot.com/