

INTRODUCTION TO ODONATA



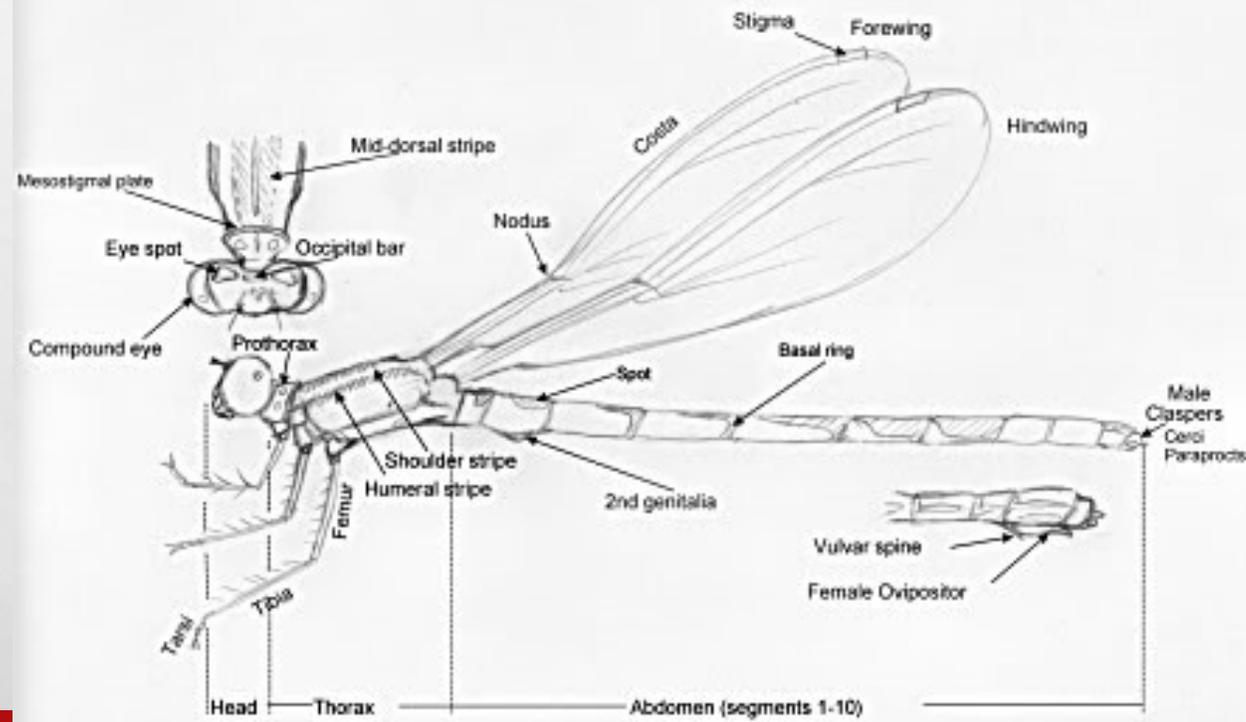
WHAT DO YOU MEAN 'ODONATA'?

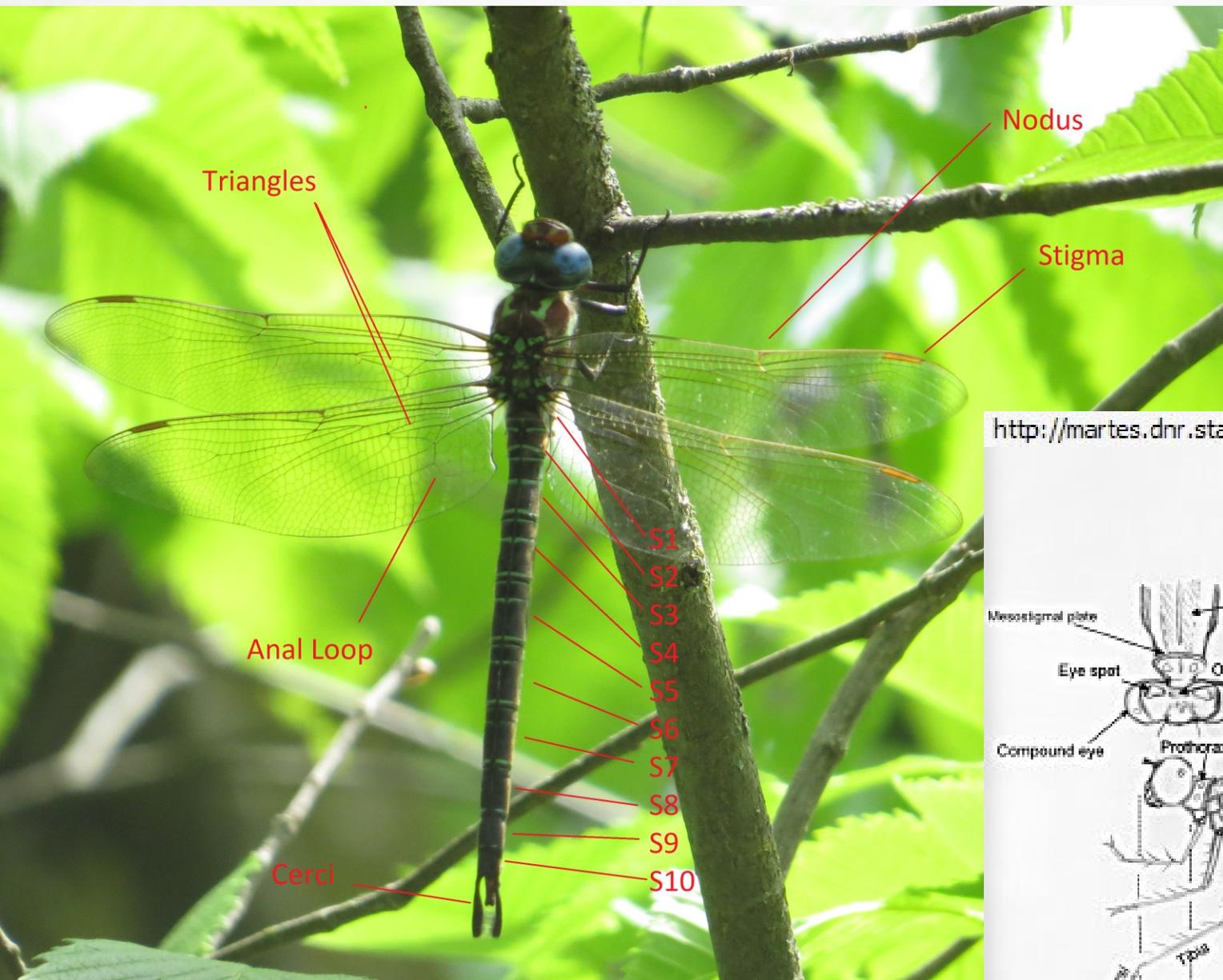
- **ORDER OF INSECTS INCLUDING DRAGONFLIES AND DAMSELFLIES**
- **FIRST FOSSIL EVIDENCE APPEARS IN LATE CARBONIFEROUS PERIOD**
- **MEANS 'TOOTHED WING'**
- **SPLIT INTO TWO MAJOR EXTANT GROUPS**
- **ZYGOPTERA**
- **ANISOPTERA**



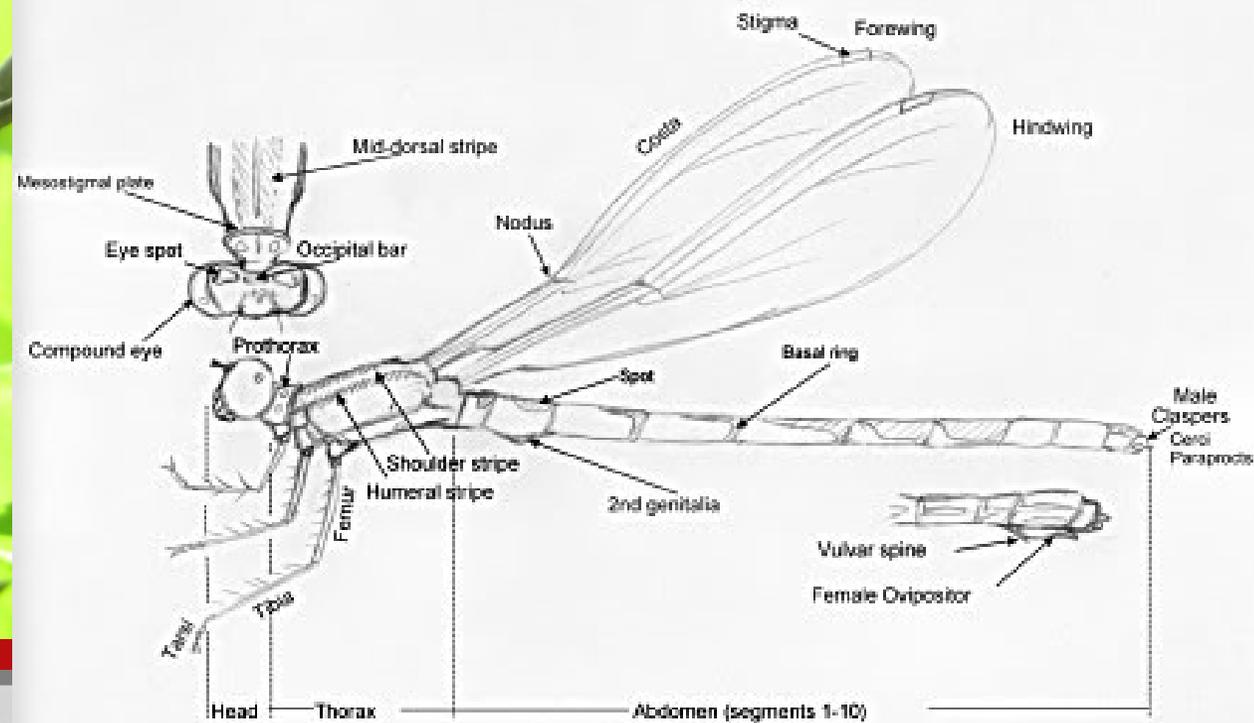
TOPOGRAPHY

<http://martes.dnr.state.wv.us/Odonata/Anatomy/DamselAnatomy.aspx>





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LIFE CYCLE

- **INCOMPLETE LIFE CYCLE**
- **UP TO 7 YEARS BEFORE EMERGENCE**



REPRODUCTION



REPRODUCTION





FEEDING





DAMSELFLIES -- ZYGOPTERA

- **LESTIDAE – SPREADWING DAMSELS**
- **CALOPTERYGIDAE – BROAD-WINGED DAMSELS**
- **COENAGRIONIDAE – POND DAMSELS**



LESTIDAE – SPREADWING DAMSELS



CALOPTERYGIDAE – BROAD-WINGED DAMSELS



COENAGRIONIDAE – POND DAMSEL



DRAGONFLIES -- ANISOPTERA

- **PETALURIDAE – PETALTAILS**
- **AESHNIDAE – DARNERS**
- **GOMPHIDAE – CLUBTAILS**
- **CORDULEGASTRIDAE – SPIKETAILS**
- **MACROMIIDAE – CRUISERS**
- **CORDULIIDAE – EMERALDS**
- **LIBELLULIDAE - SKIMMERS**



PETALURIDAE -- PETALTAILS



AESHNIDAE -- DARNERS



GOMPHIDAE -- CLUBTAILS



CORDULEGASTRIDAE -- SPIKETAILS



MACROMIIDAE -- CRUISERS



CORDULIIDAE -- EMERALDS



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