Understanding muscle groups during movement in different insect groups could yield insights into evolutionary patterns and functional constraints. David et al. (pp. 1041-1049) developed an inverse dynamic muscle model for dragonfly mandible muscles based on micro-computed tomography and bite force data. Certain mandibular muscles seem to play a minor role in bite force generation, which is a potential reason for their loss in several insect orders. Inverse dynamic muscle modelling will allow for large-scale analyses of muscle configurations and head capsule designs in the megadiverse insects and foster understanding of insect evolution under mechanical constraints. Photo credit: John Hallmen.

Cover: Understanding muscle groups during movement in different insect groups could yield insights into evolutionary patterns and functional constraints. David et al. (pp. 1041-1049) developed an inverse dynamic muscle model for dragonfly mandible muscles based on micro-computed tomography and bite force data. Certain mandibular muscles seem to play a minor role in bite force generation, which is a potential reason for their loss in several insect orders. Inverse dynamic muscle modelling will allow for large-scale analyses of muscle configurations and head capsule designs in the megadiverse insects and foster understanding of insect evolution under mechanical constraints. Photo credit: John Hallmen.

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