

Insects and public lighting



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Scheme

- Negative effect on insects
- Workflow– description of locality, methodology
- Results
- Recommended steps

Negative effects on insects

- mass extinction of insects populations
- decrease of food (fish, insect-eaters, bats, amphibians)

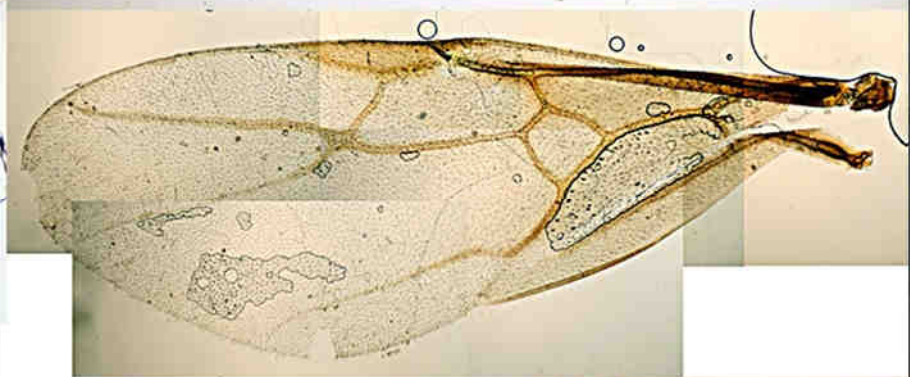
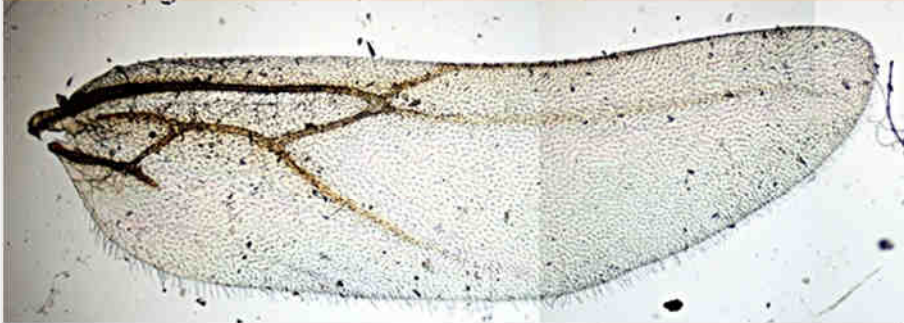
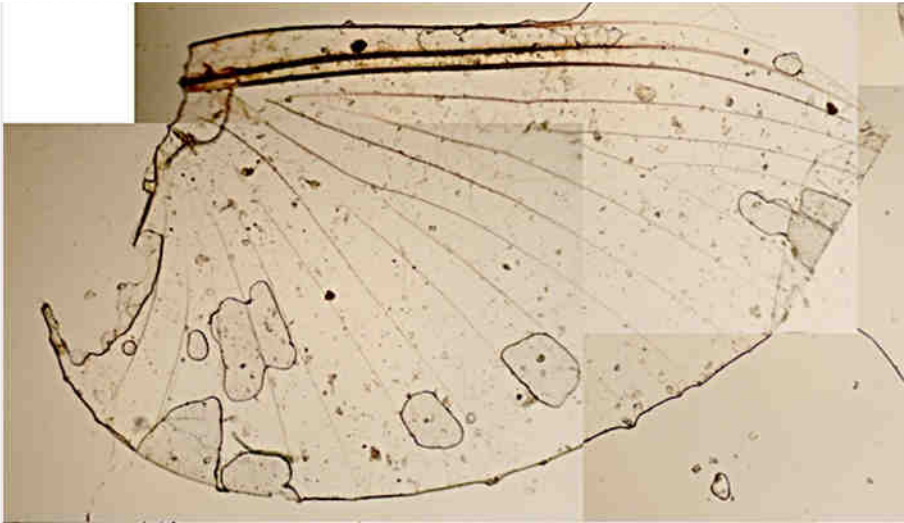


1 phase

- Bridge „Sokolovských hrdinů“, Karviná, Olše river
- Sky brightness 19,67 mag/arcsec²
- Spherical lamps with compact fluorescent bulb OSRAM Dulux 23 W warm white and mercury bulb HQL 50 W



[3], [4], [5]





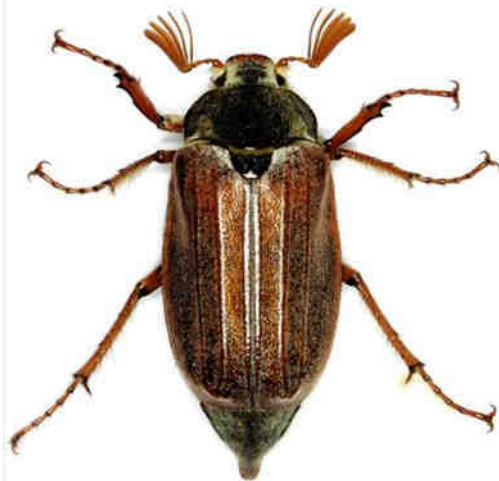
Second phase

- More localities
- During whole year
- Collecting of living samples
 - flypapers
 - vacuum cleaner



Second phase

- Determination of other species of insect (moths, beetles)
- More predators, not only spiders (ants, woodlouses)
- Very different constitution during the year



Melolontha melolontha



Sialis lutaria

Second phase

- Work is still going on
- Supported by O2 Think Big fund.

The logo for the 'Think Big' fund. The word 'think' is written in a smaller, blue, lowercase serif font. The word 'big' is written in a much larger, bold, blue, lowercase sans-serif font, positioned directly below 'think'.

**think
big**

Citace

- [1] *University of haifa* [online]. 2.9.2010 [cit. 2011-02-19]. Light at night and cancer. Dostupné z WWW: <<http://newmedia-eng.haifa.ac.il/?p=3501>>.
- [2] HOLLAN, Jan. *Mapování světelného znečištění a negativní vlivy osvětlování umělým světlem na živou přírodu na území České republiky* [online]. Brno : Masarykova univerzita v Brně, 2004 [cit. 2011-02-19]. Dostupné z WWW: <http://amper.ped.muni.cz/noc/zprava_noc.pdf>.
- [3] *Mapový server GSHTML* [online]. 2007 [cit. 2011-02-19]. [Mapy.karvina.org](http://mapy.karvina.org). Dostupné z WWW: <<http://mapy.karvina.org/cgi-bin/gsa10.cgi>>.
- [4] KONDZIOLKA, Jan. *SkyQuality.com* [online]. [cit. 2011-02-19]. SkyQuality.com - detail lokality. Dostupné z WWW: <<http://db2.skyquality.com/lokalita?Karvin%C3%A1%2C+L%C3%A1zn%C4%9B+Darkov%2C+hr%C3%A1z>>.
- [5] *Osram katalog* [online]. 2010 [cit. 2011-02-19]. 06_vybojky_2010.pdf. Dostupné z WWW: <http://www.osram.cz/osram_cz/KATALOG/06_vybojky_2010.pdf>.
- Použité fotografie: Bc. Jan Kondziolka

Thank you for your attention

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