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Biologia ewolucyjna Przebieg i zapis kopalny ewolucji

Wykład dla III roku biologii SGGW
Plan i spis cytowanej literatury

Część pierwsza: Faktografia

III. Ewolucja zwierząt (wybrane zagadnienia).

Literatura podstawowa: Valentine J, 2004. On the origin of phyla. 608 pp. Univ. Chicago Press. ISBN-10: 0226845486. ISBN-13: 978-0226845487.
Telford MJ, Budd GE & Philippe H 2015. Phylogenomic insights into animal evolution. *Current Biology* **25**: R876–887.
Grimaldi D & Engel MS, 2005. Evolution of the insects. 772 pp. Cambridge Univ. Press. ISBN-10: 0521821495. ISBN-13: 978-0521821490.

1. Klasyfikacja zwierząt i ich plany budowy.

Literatura cytowana: Morris, PJ 1993. The developmental role of the extracellular matrix suggests a monophyletic origin of the kingdom Animalia. *Evolution* **47** (1): 152-165.

Levin M et al. 2016. The mid-developmental transition and the evolution of animal body plans. *Nature* **531**: 637–641 (31 Mar 2016).

Gehring WJ 2012. The animal body plan, the prototypic body segment, and eye evolution. *Evolution & Development* **14** (1): 34–46.

Derelle R et al. 2007. Homeodomain proteins belong to the ancestral molecular toolkit of eukaryotes. *Evolution & Development* **9** (3): 212–219.

Ryan JF et al. 2010. The homeodomain complement of the ctenophore *Mnemiopsis leidyi* suggests that Ctenophora and Porifera diverged prior to the ParaHoxozoa. *EvoDevo* **1**: 9.

Ryan JF & Baxevanis AD 2007. Hox, Wnt, and the evolution of the primary body axis: insights from the early-divergent phyla. *Biology Direct* **2**: 37.

2. Żebroplawy i ich pozycja w filogenezie.

Literatura cytowana: Shu DG et al. 2006. Lower Cambrian Vendobionts from China and Early Diploblast Evolution. *Science* **312** (5774): 731–734.

3. Pochodzenie stawonogów.

Literatura cytowana: Edgecombe GD & Legg DA 2014 Origins and early evolution of arthropods. *Palaeontology*, **57** (3): 457–468.

4. Owady – najliczniejsza grupa zwierząt.

- Literatura cytowana:* Bradley TJ et al. 2009. Episodes in insect evolution. *Integrative and Comparative Biology*, **49** (5): 590–606.
- Jiangli Tan & Baozhen Hua 2008. Morphology of immature stages of *Bittacus choui* (Mecoptera: Bittacidae) with notes on its biology. *Journal of Natural History* **42** (31-32): 2127–2142.
- Prokop, J et al. 2012. Paoliida, a putative stem-group of winged insects: Morphology of new taxa from the Upper Carboniferous of Poland. *Acta Palaeontologica Polonica* **57** (1): 161–173.
- Brauckmann C et al. 1994. The stratigraphical position of the oldest known Pterygota. *Annales de la Société géologique de Belgique*, **117** (1): 47–56.
- Ward P et al. 2006. Confirmation of Romer's Gap as a low oxygen interval constraining the timing of initial arthropod and vertebrate terrestrialization. *PNAS* **103** (45): 16818–16822.
- Hasenfuss I 2008. The evolutionary pathway to insect flight. *Arthropod Systematics & Phylogeny* **66** (1): 19–35.
- Truman JW & Riddiford LM 1999. The origins of insect metamorphosis. *Nature* **401**: 477–452.
- Nel A et al. 2007. The earliest holometabolous insect from the Carboniferous: a “crucial” innovation with delayed success (Insecta Protomeropina, Protomeropidae). *Annales de la Société entomologique de France* (n.s.), **43** (3): 349–355.
- Beckemeyer & Hall 2007. The entomofauna of the Lower Permian fossil insect beds of Kansas and Oklahoma, USA. *African Invertebrates* **48** (1): 23–39.
- Yang Q et al. 2009. An exceptionally well-preserved fossil Kalligrammatid from the Jehol Biota. *Chinese Science Bulletin* **54** (10): 1732–1737.
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5. Kręgowce – największe zwierzęta lądowe.

- Literatura cytowana:* Estes JA et al. 2011. Trophic downgrading of planet Earth. *Science* **333** (6040): 301–306.
- Wagner GP et al. 2003. Hox cluster duplications and the opportunity for evolutionary novelties. *PNAS* **100** (25): 14603–14606.
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- Mallatt J 2008 The Origin of the Vertebrate Jaw. *Zoological Science* **25** (10): 990–998.
- Carroll R 2009. The Rise of Amphibians. SBN-10: 080189140X ISBN-13: 978-0801891403.
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- Mejdell CM et al. 2016 Horses can learn to use symbols to communicate their preferences. *Applied Animal Behaviour Science*, **184**: 66 – 73 (Nov 2016).

6. Ramienionogi – przykład trwania bez zasadniczych zmian.

Literatura cytowana: Williams A et al. 1996. A supra-ordinal classification of the Brachiopoda. *Phil. Trans. R. Soc. B* **351**: 1171–1193.

Ruban DA 2009. Phanerozoic changes in the high-rank suprageneric diversity structure of brachiopods: Linear and non-linear effects. *Palaeoworld* **18** (4): 263–277.

7. Model specjacji allopatrycznej.

Literatura podstawowa: Mayr E 1974. *Populacje, gatunki i ewolucja*. 592 pp. PWN.

Literatura cytowana: Meise, W. (1928) Die Verbeitung der Aaskrahe (Formenkreis *Corvus corone* L.). *J. Orn.* **76**, 1-203.

Mayr E & O'Hara RJ 1986. The biogeographic evidence supporting the Pleistocene forest refuge hypothesis. *Evolution* **40** (1): 55–67.

Johnson NK & Cicero C 2004 New mitochondrial data affirm the importance of Pleistocene speciation... *Evolution* **58** (5): 1122–1130.