



## Seewiesen Colloquia

Speaker invited by: Research Group Brumm

Thursday, 10 December 2015, 13:00 h, in House 4, Lecture Room

## The Evolution of Beauty

**Richard Prum,**

Yale University

Most contemporary research in sexual selection assumes that sexual display traits are honest indicators of mate quality or provide mate choice efficiency. I propose that these adaptive mate choice mechanisms are insufficient to explain the complexity and diversity of sexual ornaments in the natural world. I expand upon Darwin's original view of mate choice as a mechanism of aesthetic evolution, which requires sensory perception, sensory/cognitive evaluation, and choice. As Darwin hypothesized, aesthetic evolution places the explanation of the evolution of individual subjective preferences at the center of scientific inquiry. A fundamental feature of aesthetic evolution is the coevolution of ornament and the evaluations of them. In this context, beauty can be defined as the subjective experience of coevolved attraction. Aesthetic evolutionary process occurs in many contexts including mate choice, pollination, frugivory, aposematism, mimicry, and offspring ornaments. In mate choice, the fully aesthetic Fisherian mechanism of trait-preference coevolution, as modeled by Lande-Kirkpatrick, is the appropriate null model. The LK null model must be rejected before adaptive mate choice explanations can be accepted. Aesthetic coevolution is not limited to non-human animals. Rather, the intrinsically coevolutionary dynamics found in many natural systems also characterize the process of aesthetic change in the human arts.

## Who is Richard Prum?

1989	PhD University of Michigan, Ann Arbor, Michigan
1989-1991	Chapman Fellow, American Museum of Natural History, New York, New York
1991-2003	Professor & Curator, University of Kansas, Lawrence, Kansas
2004- Present	Professor & Curator, Yale University, New Haven, Connecticut
2010-2014	MacArthur Fellowship, MacArthur Foundation, Chicago, Illinois

## Selected publications:

- Prum, R. O. 1997. Phylogenetic tests of alternative intersexual selection mechanisms: macroevolution of male traits in a polygynous clade (Aves: Pipridae). **American Naturalist** 149: 668-692.
- Prum, R. O. 2010. The Lande-Kirkpatrick mechanism is the null model of evolution by intersexual selection: implications for meaning, honesty, and design in intersexual signals. **Evolution** 64: 3085-3100.
- Prum, R. O. 2012. Aesthetic evolution by mate choice: Darwin's *really* dangerous idea. **Philosophical Transactions of the Royal Society London B** 367: 2253-2265.
- Brennan, P. L. R., and Prum, R. O. 2012. The limits of sexual conflict in the narrow sense: new insights from waterfowl biology. **Philosophical Transactions of the Royal Society London B** 367: 2324-2338.
- Prum, R. O. 2013. Coevolutionary aesthetics in human and biotic artworlds. **Biology and Philosophy** 28: 811-832.
- Prum, R. O. 2015. The role of sexual autonomy in evolution by mate choice. Pp. 237-262, *In* **Current Perspectives in Sexual Selection**. Ed. T. Hoquet, Springer, New York.