

# Comparative Embryology at Friday Harbor Labs

June 14 — July 17 2004

George von Dassow & Steve Stricker

## Course Highlights:

- learn to culture marine invertebrate embryos and larvae;
- witness the vast diversity of developmental variation – last year's course covered more than 60 animal species;
- learn to use a confocal microscope and make time-lapse videos;
- acquaint yourself with the marine habitats and invertebrate fauna available to researchers at Friday Harbor Labs;
- learn how to draw!

This five-week course provides extensive hands-on experience with fertilization and development of Cnidarians, Ctenophores, Platyhelminthes, Nemertean, Molluscs, Annelids, Brachiopods, Phoronids, Bryozoans, Echinoderms, Urochordates, Chaetognaths, Arthropods, and more as available. Students will collect these animals in the field, obtain gametes, raise their own cultures of embryos and larvae, and study development from fertilization through larval stages, even through metamorphosis. Lectures will cover invertebrate reproduction and development, signal transduction in eggs and embryonic cells, the cellular basis of morphogenesis, experimental analysis of developmental pattern formation, and the evolutionary changes in development. Lab time will be primarily devoted to observing and describing living embryos in culture. The course will also introduce various techniques of use to modern comparative embryologists, including confocal and video microscopy and imaging methods for live cells. The course will include a variety of field collecting trips to acquaint students with the environments in which invertebrate reproduction and development occur in the San Juan Islands.

## Contact info:

Visit <http://depts.washington.edu/fhl>  
for application information

Instructors' email:  
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**Applications  
due March 1st**

**Enrollment  
limited to 12**

