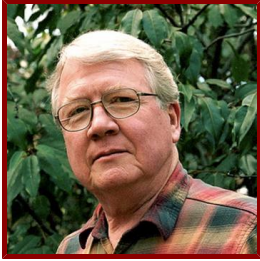


# Stanford

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## Ward Watt

Professor of Biology, Emeritus

### Bio

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#### ACADEMIC APPOINTMENTS

- Emeritus Faculty, Acad Council, Biology
- Professor, Biology

#### ADMINISTRATIVE APPOINTMENTS

- Trustee, California Academy of Sciences, (1997- present)
- President, California Academy of Sciences, (2003- present)

#### PROFESSIONAL EDUCATION

- PhD, Yale University , Biology (1967)
- MS, Yale University , Biology (1964)
- BA, Yale University , Scholar of the House (Zoology) (1962)

### Research & Scholarship

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#### CURRENT RESEARCH AND SCHOLARLY INTERESTS

Evolutionary adaptive mechanisms, molecules to ecosystems

### Teaching

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#### GRADUATE AND FELLOWSHIP PROGRAM AFFILIATIONS

- Biology (School of Humanities and Sciences) (Phd Program)

### Publications

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#### PUBLICATIONS

- **Specific-gene studies of evolutionary mechanisms in an age of genome-wide surveying.** *Annals of the New York Academy of Sciences*  
Watt, W. B.  
2013; 1289 (1): 1-17
- **Evolutionary genomics of *Colias* Phosphoglucose Isomerase (PGI) introns.** *Journal of molecular evolution*  
Wang, B., Mason Depasse, J., Watt, W. B.  
2012; 74 (1-2): 96-111
- **Emergence of Complex Haplotypes from Microevolutionary Variation in Sequence and Structure of *Colias* Phosphoglucose Isomerase** *JOURNAL OF MOLECULAR EVOLUTION*

- 
- Wang, B., Watt, W. B., Aakre, C., Hawthorne, N.  
2009; 68 (5): 433-447
- **A mitochondrial-DNA-based phylogeny for some evolutionary-genetic model species of *Colias* butterflies (Lepidoptera, Pieridae)** *MOLECULAR PHYLOGENETICS AND EVOLUTION*  
Wheat, C. W., Watt, W. B.  
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  - **From DNA to fitness differences: Sequences and structures of adaptive variants of *Colias* phosphoglucose isomerase (PGI)** *MOLECULAR BIOLOGY AND EVOLUTION*  
Wheat, C. W., Watt, W. B., Pollock, D. D., Schulte, P. M.  
2006; 23 (3): 499-512
  - **A reconnaissance of population genetic variation in arctic and subarctic sulfur butterflies (*Colias* spp.; Lepidoptera, Pieridae)** *CANADIAN JOURNAL OF ZOOLOGY-REVUE CANADIENNE DE ZOOLOGIE*  
Wheat, C. W., Watt, W. B., Boutwell, C. L.  
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  - **Adaptation at specific loci. VII. Natural selection, dispersal and the diversity of molecular-functional variation patterns among butterfly species complexes (*Colias* : Lepidoptera, Pieridae)** *MOLECULAR ECOLOGY*  
Watt, W. B., Wheat, C. W., Meyer, E. H., Martin, J. F.  
2003; 12 (5): 1265-1275
  - **Molecular-functional studies of adaptive genetic variation in prokaryotes and eukaryotes** *ANNUAL REVIEW OF GENETICS*  
Watt, W. B., Dean, A. M.  
2000; 34: 593-622
  - **Flight-muscle adenylate pool responses to flight demands and thermal constraints in individual *Colias eurytheme* (Lepidoptera, Pieridae)** *JOURNAL OF EXPERIMENTAL BIOLOGY*  
Kohane, M. J., Watt, W. B.  
1999; 202 (22): 3145-3154
  - **Adenylate levels and environmental stress in the sea anemone *Anthopleura elegantissima*.** *Molecular marine biology and biotechnology*  
Smith, B. L., Watt, W. B.  
1994; 3 (5): 261-269
  - **ALLOZYMES IN EVOLUTIONARY GENETICS - SELF-IMPOSED BURDEN OR EXTRAORDINARY TOOL** *GENETICS*  
Watt, W. B.  
1994; 136 (1): 11-16
  - **ADAPTATION AT SPECIFIC LOCI .3. FIELD BEHAVIOR AND SURVIVORSHIP DIFFERENCES AMONG COLIAS PGI GENOTYPES ARE PREDICTABLE FROM INVITRO BIOCHEMISTRY** *GENETICS*  
Watt, W. B., CASSIN, R. C., SWAN, M. S.  
1983; 103 (4): 725-739
  - **ADAPTATION AT SPECIFIC LOCI .2. DEMOGRAPHIC AND BIOCHEMICAL-ELEMENTS IN THE MAINTENANCE OF THE COLIAS PGI POLYMORPHISM** *GENETICS*  
Watt, W. B.  
1983; 103 (4): 691-724
  - **METABOLIC RESOURCE-ALLOCATION VS MATING ATTRACTIVENESS - ADAPTIVE PRESSURES ON THE ALBA POLYMORPHISM OF COLIAS BUTTERFLIES** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA-BIOLOGICAL SCIENCES*  
Graham, S. M., Watt, W. B., GALL, L. F.  
1980; 77 (6): 3615-3619