SISG Module 13 Statistical Genetics

Video Links

Section 1: Genetic Data

Statgen1.1: Genetic Data [Statgen1](https://washington.zoom.us/rec/share/xe5SBZD05zpJf5WVsV2Hd6VxF9vAT6a81iNLqaZfxU35RAeMcHuTlNbhtjzW1dDl)

Statgen1.2: Probability and Sampling [Statgen1.2](https://washington.zoom.us/rec/share/7NZbf5ry0FpOS6fL6Gz0e_Y_RYrOaaa81CcZ_KYMmEsa0f0p-6yj7QL74AC56l4X)

Statgen1.3: Mendel and Fisher [Statgen1.3](https://washington.zoom.us/rec/share/7u1EdYnB9FFJaM_E1H2BfakHGr7BX6a81CJP_vcEyEqR7nZTHbsEA909K5FCthvP)

Section 2: Allele Frequencies

Statgen2.1:Binomial Distribution [Statgen2.1](https://washington.zoom.us/rec/share/zpJqA-2t1F9OZdaS6BHeXo4-H7nseaa803JI-fsEyUnGZ2Je3A3-O6HUtZaB622f)

Statgen2.2:Allele Frequency Sampling [Statgen2.2](https://washington.zoom.us/rec/share/pukpJbPc625IYbf_tEGGfrIxPYO9T6a82yMW_fEPxUpKKGErFzrxuGhah-dutnCG)

Statgen2.3: Within-population Inbreeding [Statgen2.3](https://washington.zoom.us/rec/share/vNJnMJHP9zhOftbT8WTUB5w_GKrmaaa80CgarvVfzxpz5QfVGb03yO39zVyNsjTo)

Section 3: Hardy-Weinberg Equilibrium

Statgen3.1: Normal-distribution HWE Tests  [Statgen3.1](https://washington.zoom.us/rec/share/vsVaLvLq5EhIX6uU6kfacfMgJb2_T6a82nJIq_FYnU6fr6Q9ALqrsqPjtCMGFA9N)

Statgen3.2: Exact HWE Tests [Statgen3.2](https://washington.zoom.us/rec/share/z85pH-H31mJISZX_yXr4AvcmO7_Xaaa80yQe__VfnW5T4BuXFwjZYxCy_hHnCbY)

Statgen3.3: HWE Tests for Separate Sexes [Statgen3.3](https://washington.zoom.us/rec/share/xMdJf7fp9lJObM_9817bXYMjHa7vX6a80ydLr6ANnkY9SO8paEfLEROSg7v-2qfg)

Statgen3.4: Linkage Disequilibrium [Statgen3.4](https://washington.zoom.us/rec/share/69JsD67U_DhJEq_ow2DvAfYxL6_3T6a81SNM-vILxUdNo5nGNFN0IvIE3t9WEpUb)

Section 4: Population Structure, Inbreeding and Relatedness

Statgen4.1: Population Structure Parameters [Statgen4.1](https://washington.zoom.us/rec/share/4fBaA73X0z1JQ5XitR39dasBA63eeaa8hiVI-KEIn0spQYx5_5CnSNa0LO59GWpE)

Statgen4.2: Population Structure Estimation [Statgen4.2](https://washington.zoom.us/rec/share/5Md3F7as_XtIZtLr-WbYfLQnJIXveaa8gSRLq_ELyBk4XH4nFHC6JXF-hIm3CvHj)

Statgen4.3: Kinship Parameters [Statgen4.3](https://washington.zoom.us/rec/share/1ZVrLqyo_3hJfZHs5HjdeoRmDJTUaaa81HMcqKVbxUxlZJlCq9WBG5GVmT2kZjLH)

Statgen4.4: Kinship Estimation [Statgen4.4](https://washington.zoom.us/rec/share/_8JEMOmg62dJS4HjwljAc_cwBrvkT6a80Hcc8qZeykigzJvgnbr9eoRAGC1bw8Mq)

Section 5: Quantitative Traits

Statgen5.1: Quantitative Traits [Statgen5.1](https://washington.zoom.us/rec/share/195xdY6pxnxITIHDxHrCdbA4EIW_X6a80yca_vAFzxsCzApXOzANBnGFvQQcgmY9)

Statgen5.2: Heritability Estimation [Statgen5.2](https://washington.zoom.us/rec/share/zpBQC7zO32hOadb192WAcYtmIJ3jeaa8gSIXqKEJyE_zuJZIy6dRfII15Flauqep)