potential function

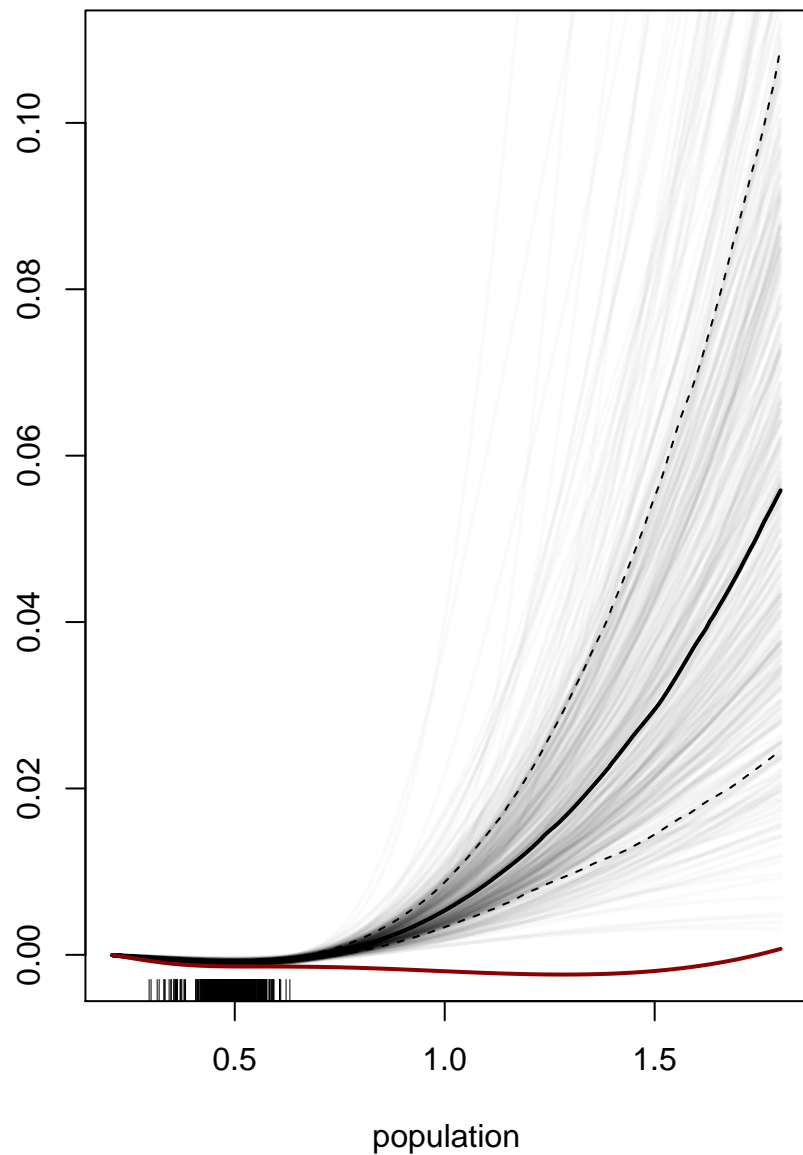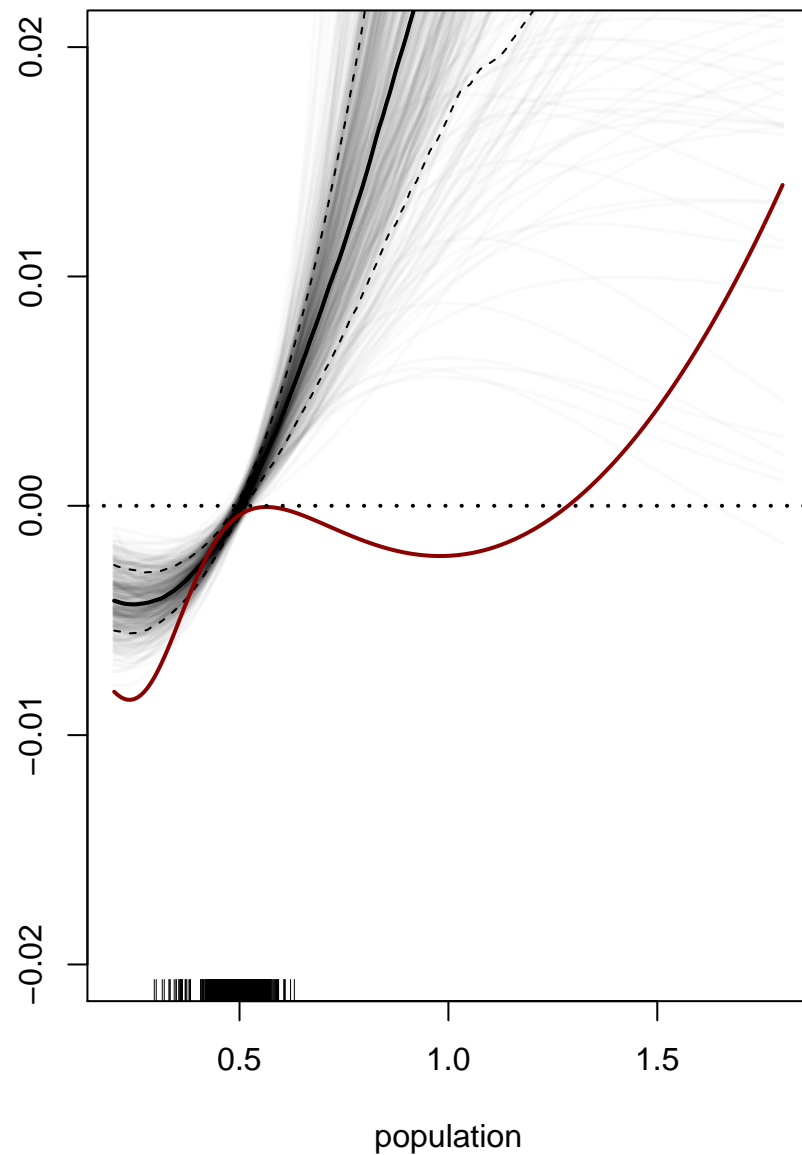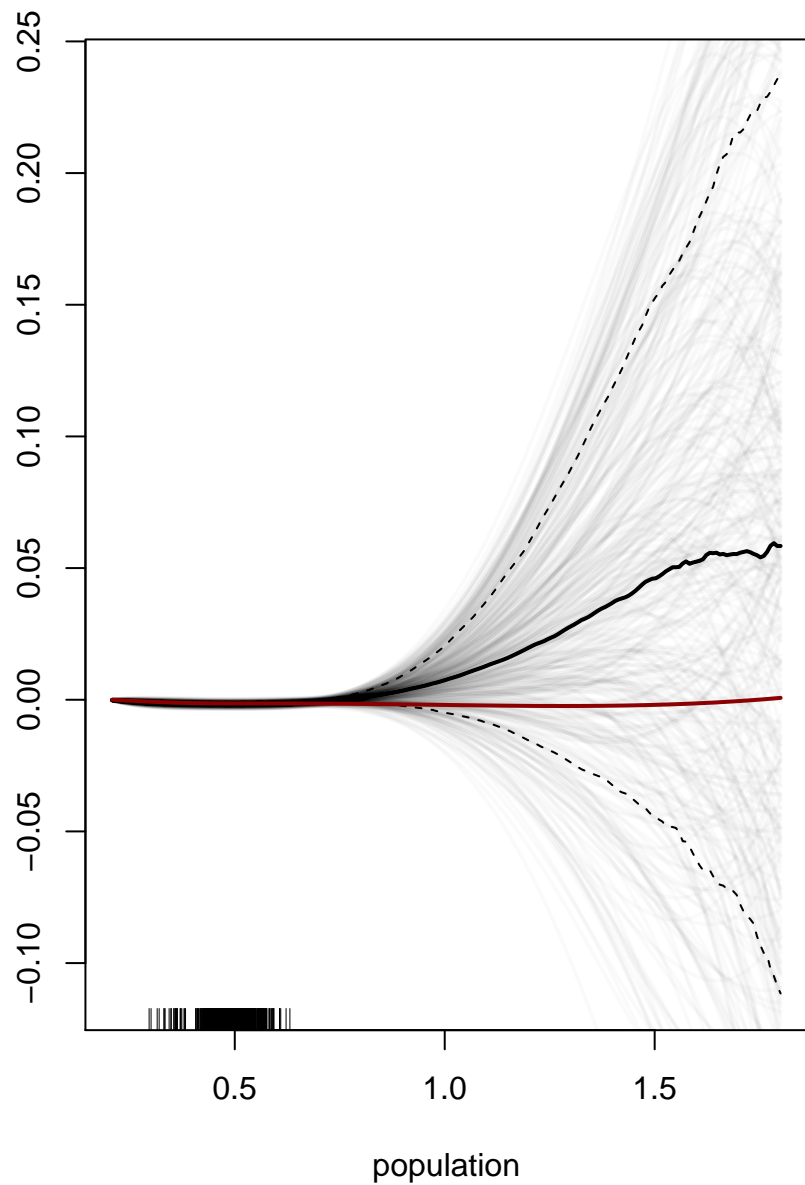**derivative of potential function**

population

| potential function | derivative of potential function |