

Table S16: Classification of CEU data with classifier trained to differentiate adaptive introgression, sweeps, and neutrality, $\gamma = 1$, Level 1 chosen through cross validation (see *Training the models*), Daubechies' least asymmetric wavelets

| Chromosome | Neutral | Introgression sweep | Sweep | $\mathbb{P}[\text{Introgression sweep}] > 0.6$ | $\mathbb{P}[\text{Sweep}] > 0.6$ |
|------------|---------|---------------------|-------|--|----------------------------------|
| 1 | 87.4 | 4.0 | 8.6 | 0.3 | 1.6 |
| 2 | 85.7 | 4.7 | 9.6 | 0.4 | 0.4 |
| 3 | 88.4 | 3.9 | 7.8 | 0.3 | 0.5 |
| 4 | 85.2 | 6.3 | 8.5 | 0.9 | 1.1 |
| 5 | 90.2 | 2.7 | 7.1 | 0.1 | 0.5 |
| 6 | 88.9 | 3.8 | 7.4 | 0.2 | 0.6 |
| 7 | 87.8 | 3.1 | 9.2 | 0.1 | 0.6 |
| 8 | 84.4 | 5.6 | 10.0 | 0.2 | 1.2 |
| 9 | 85.2 | 3.5 | 11.2 | 0.2 | 0.7 |
| 10 | 86.7 | 5.1 | 8.2 | 0.5 | 0.7 |
| 11 | 88.5 | 3.3 | 8.1 | 0.1 | 0.9 |
| 12 | 86.8 | 3.3 | 9.9 | 0.3 | 0.4 |
| 13 | 91.4 | 3.3 | 5.3 | 0.0 | 0.3 |
| 14 | 86.9 | 3.2 | 9.9 | 0.0 | 0.5 |
| 15 | 79.4 | 5.7 | 14.9 | 0.3 | 1.6 |
| 16 | 81.6 | 5.0 | 13.4 | 0.2 | 2.1 |
| 17 | 87.0 | 5.2 | 7.8 | 0.2 | 0.3 |
| 18 | 85.3 | 5.8 | 8.9 | 0.1 | 0.9 |
| 19 | 82.5 | 4.0 | 13.5 | 0.0 | 0.9 |
| 20 | 83.6 | 4.5 | 11.9 | 0.0 | 0.6 |
| 21 | 88.3 | 6.2 | 5.6 | 0.2 | 0.1 |
| 22 | 86.1 | 2.9 | 11.0 | 0.0 | 0.1 |