





Ethogram for pine siskins

Locomotor behaviors

Jump – Locomotion (including climbing), using feet for primary propulsion.

Flight - Locomotion, using wings for primary propulsion

FWB (fast wing beats) – Moving wings rapidly up and down while on perch or lifting off perch

Self-maintenance behaviors

Stationary – Sitting in relaxed position or hanging for prolonged period of time, not moving within cage. May move head.

Feed – Actively searching in cups or consuming food, water or grit

Preen – Grooming self, typically using beak

Social behaviors

Bill touching – Making contact with another bird by touching beaks together, may occur repeatedly in rapid succession or one bird inserts its bill into the other's mouth (without transfer of food)

Courtship feeding – one bird transfers food to the mouth of the other bird (not commonly seen)

Preen other – grooming another bird, typically with beak (very rare behavior)

Aggression – display or attack directed at another bird (listed individually below), do not need to distinguish between the different types

Physical attack – actor pecks at head, body or wings of another bird

Supplanting attack – one bird flies at another who abandons its perch, the attacker perching in its place (the responding bird must move to avoid contact with incoming bird) Threat displays:

- *D1* Low-intensity, head forward, in which bird faces opponent with neck partially extended and beak closed.
- D2 Low-intensity, head forward with beak open and neck extended
- *D3* High-intensity, head forward, in which neck is extended further and lowered, beak open, and wings partially spread, showing rump
- D4 High-intensity, head forward, with wings raised, spread and flapped.

Modified from: Agatsuma & Ramenofsky 2006, Senar et al. 1990, Senar 1990, Watts et al. 2017