

Supplementary table 1. Ethogram.

Code	Behaviour	Description
L	Lie	Animal's back is flat against floor and animal is stationary. Can be ventrally, dorsally or laterally.
S	Sit	Animal is stationary on rump.
SS	Stand Still	Animal is stationary standing either quadrupedally or bipedally.
W	Walk	Animal moves quadrupedally across floor.
R	Run	Animal moves rapidly either quadrupedally or bipedally across floor.
C	Climb	Animal moves up structure using limbs to get higher, always having two limbs in contact with structure.
SW	Swing	Animal grasps overhead structure with hands and pivots body forward
P	Pace	Animal moves around edge of enclosure repeatedly.
RO	Rock	Animal's legs bent and knees to chest with arms folded, and body sways side to side.
PL	Play	Animal conducts repetitive solitary behaviour whilst displaying play face, objects often incorporated. Can include locomotive play: e.g. somersault.
AG (AGG, AGR)	Allogroom Giving & Receiving	Animal uses mouth or hands to comb or inspect recipient's fur, extremity, or orifice.
AB	Aggressive behaviour	Animal conducts behaviours such as slapping, biting without play face.
IG	Inspect genitalia	Animal visually or tactfully responds to another's genitalia
CO	Copulation	Animal mounts another and pelvic thrusting is carried out.
GP	Group play	Two or more animals conduct repetitive and exaggerated actions whilst play face is displayed.
G	Greet	Animal approaches another and places face within 15 cm of another's muzzle.
H	Huddle	Two or more animals are stationary, and bodies are touching.
AT	Attack	Animal actively pursues another in a hostile way followed by physical aggressive behaviour.
CT	Comfort	Animal changes posture towards an individual or behaviour in response to uncomfortable situation (e.g. yawning, scratching).
BW	Buddy Walk	Animal walks bipedally or tripedally whilst holding another's hips or shoulders.
M	Masturbate	Animal self stimulates genitalia.
Y	Yawn	Animal opens mouth widely, tips head back and exposes teeth.
E	Eat	Animal places food in mouth, followed by chewing and swallowing.
D	Drink	Animal consumes water/juice.
OG	Object gather	Animal accumulates objects dispersed and collects them together.
OH	Object hold	Animal uses hands/feet/mouth to carry object.
OD	Object dismantle	Animal uses hands/feet/mouth to dismantle object.
OU	Object use	Animal utilises a non-fixed object for a purpose or goal (e.g. to increase comfort).
G	Groom	Animal uses fingers/mouth to comb own fur or nails.
EL	Eliminate	Animal urinates, excretes, or regurgitates.
FO	Forage	Animal manipulates substrate to obtain food.
HC	Hand clap	Animal brings hands together rapidly and repeatedly.
CB	Chest beat	Animal repeatedly strikes chest with cupped hands.
N	Nurse	Infant suckles on mother's breast.
W	Wean	Mother actively prevents or terminates nursing by pushing infant away from breast.
V	Vigilance	Rapid eye and head movements.
CA	Carry	Infant holds on to adult's dorsal, ventral or lateral area of body. Adult can use arm to support infant.
CO	Coprophagy	Animal uses hand to bring faeces or urine to mouth to consume.
CH	Charge	Animal (usually silverback) runs directly towards another, sometimes accompanied by a slap.
VI	Visitor Interaction	Animal directs behaviour towards visitors.
SOM	Somersault	Animal rotates body forwards along the floor.
NB	Nest Build	Animal uses arms to pack straw around body. Seated position.
J	Jump	Animal uses hind legs to push body up and into the air, usually to grab or pull something above.
RR	Regurgitation and re-ingestion	Animal's abdomen moves rapidly, and vomit is produced from mouth and then consumed.
CW	Chew	Animal moves object around in mouth with teeth but does not eat.
O	Other: Embrace Kiss Touch	