

Ethogram: Grey Wolf (*Canis lupus*)

(Formulated from: Goodmann et al., 2002; Frézard and Pape, 2003; Mech and Boitani, 2003; Ross, 2006; Pifarré et al., 2012)

Behaviour expressed	Code	Description of Behaviour
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Agonistic Behaviours Elicited Aggression

Agonistic Pucker	AP	Vertical retraction of the lips. Self-confident animal will simultaneously bring the corners of the mouth forward so only the canines and incisors are exposed (APC) Fearful animal will draw the corners of the mouth back, exposing the corners of the mouth back, exposing some pre-molars (APF)
Approach	APP	Movement toward another individual often used as part of threat or sexual behaviours. The combination of other expressive behaviours will give reason for the approach.
Bark	BK	There are three basic types of bark: Breathly Woof, Growl Bark and the Bow Wow.
Coat	COAT	Mounting without clasping. Scruff may be gripped in the mouth of the wolf performing the mount.
Critical Reaction	CRIT-R	Intense aggressive behaviour – usually defensive and elicited. Can escalate into an all-out attack. Exhibited in wolves unable/unwilling to retreat – can be due to the lack of an avenue of retreat from an approaching animal/human who are not intending a threat
Fight	FT	A general term for high intensity, aggressive, often damaging encounters. A fight between two or three wolves will become a mobbing as more wolves join, and focus their attention on one wolf.
Give Eye	G-EYE	Staring intently, often accompanied by orienting, stalking, and herding.
Growf	GROWF	A combination of growl, agonistic pucker, and snap, all performed very rapidly. May be augmented by a lunge and a tongue flick, as well as threat stares. The growfer may also show some piloerection (hackles).
Growl	G	A throaty rumbling vocalisation, usually low in pitch. May be used in aggressive or defensive interactions
Hackles 1-4	H1-4	Piloerection of the fur along the spine, which tends to make the wolf look larger than it actually is. Hackles: 1=scruff/withers, 2=back, 3=rump and 4=tail.
Herd	HERD	Staring at and following another wolf persistently, so that the followed wolf is displaced and sometimes literally herded, as if it were a sheep and the other wolf a sheep dog. Often appears that the wolf being herded has no free choice as to where to go.

Hook	HOOK	To crook the foreleg around something and pull it toward oneself. May also be used to trip or attempt to trip another wolf during wrestling.
Hurtle	HURLTE	To jump repeatedly at another animal (usually a human), ostensibly to greet face-to-face at first.
Inhibited Bite	IB	A bite without sufficient pressure to wound a wolf.
Lumpy Whisker Bed	LWB	A description of muscle tension in the area of the vibrissae on a wolf's upper lip to either side of the black fleshy part of its nose. It is a precursor to an agonistic pucker, and wrinkling of the nose, with the muscles just beginning to tense when an agonistic pucker is incipient. The muscles under the lower eyelids may also contract, giving a wolf with facial markings the appearance of shallow bags forming under its eyes. These "eye bags" are harder to spot in wolves with solid coloured faces. If a human can learn to pick up this subtle cue, some aggressive wolf-human interactions may be avoided.
Lunge	L	Rapid advance towards another wolf nearby. Usually will include piloerection, stiff forelegs, ears back, agonistic pucker, snap, and sometimes an inhibited bite. The approach may actually take the form of a short jump and/or a few running steps
Muzzle Bite-Hard	MBT	Grabbing the muzzle and applying enough pressure to make the grabbed wolf whimper. Muzzle biting is often accompanied by other threat behaviours which may also elicit whimpering
Piloerect pace	ABPP	Walking with stiff forelegs, head down, piloerect, ears usually back, often moving parallel to other animal
Pin	P	Lunge and bite (often an inhibited bite) at the neck of another wolf or making a muzzle bite – hard, forcing it to the ground and holding it there.
Point	POINT	To Stand on three legs with the head and neck level with the back or slightly above or below. The wolf has one foreleg lifted, flexed at the wrist as if pointing with its wrist. This is essentially a stationary phase, a sort of behavioural freeze frame, in stalking
Pull	PULL	To grab another wolf and draw it along, without the pulled wolf being recumbent. Wolves will sometimes pull each other by the tail or leg or scruff as well as the fur or the ear. The wolf being pulled typically remains on its feet and may brace and resist being pulled, or may try to make the puller let go by struggling and biting. If pulled by a leg, the wolf may hop along trying to stay on its feet (even hopping backwards if one of its hind legs is being used as a handle) while it tries to make the other wolf release it
Showing teeth	AST	Opening mouth and showing teeth

Snap	SN	A rapid bite that has a little contact with its object. As the wolf's jaws come together, the teeth make an audible sound
Stand Over	STD-O	Straddling a recumbent wolf. Typically, standing across the recumbent wolf, but a wolf may also straddle another along its longitudinal axis. It may or may not try to provoke a response from the resting wolf and try to prevent it from getting up. Longitudinal orientation may be head to head or head to tail
Stand Tall	STAND TALL	A wolf draws itself up to its full height. The neck is often arched and the ears pricked. It may stare at another wolf. The tail, if not already carried high, may rise. Some wolves stand well up on their toes as if trying to get on "tiptoe". This behaviour is seen during threat displays and also during courtship. Its effect is sometimes enhanced by raised hackles
Stare	STARE	An intense fixed gaze. In social encounters, the stare may have a "hard" quality
Threaten	TH	A general term useful when action is so fact that some detail must be sacrificed. Includes but is not limited to behaviours such as staring, growling, agonistic puckers, lateral displays, hackles, lunges, snaps, and ambushes
Tail Position 1-4	T1-4	T1=Tail above the level of the back T2=Tail level with the back T3=Tail below the level of the back T3.5=Tail brushing the hooks T4=Tail between the legs. It may touch the belly in some cases. T1 in a circle=tail curved over back in a circle-not as tight as a sled dog's tail curve
Woof	WF	One of the three types of barks. It may sound soft and breathy like a cough or be louder and more explosive. It may also segue into growl barks
Wrestle	WR	Stand together on hind legs, front legs on others shoulders, usually silent and with open mouth. Involves a lot of rapid shifting body contact, including shoving, gripping, grabs, inhibited bites, and attempts to pin or know down

Food-Related Aggression

Agonistic Pucker	AP	Vertical retraction of the lips. Self-confident animal will simultaneously bring the corners of the mouth forward so only the canines and incisors are exposed (APC) Fearful animal will draw the corners of the mouth back, exposing the corners of the mouth back, exposing some pre-molars (APF)
Approach	APP	Movement toward another individual often used as part of threat or sexual behaviours. The combination of other expressive behaviours will give reason for the approach.
Bark	BK	There are three basic types of bark: Breathy Woof, Growl Bark and the Bow Wow.

Bite	BT	To close jaws and teeth on another. Indicates an uninhibited bite which often causes wounds.
Chase	CS	Chase another animal, usually with ears back and piloerect
Choke	CHOKE	Done to another wolf by squeezing its windpipe
Fight	FT	A general term for high intensity, aggressive, often damaging encounters. A fight between two or three wolves will become a mobbing as more wolves join, and focus their attention on one wolf.
Give Eye	G-EYE	Staring intently, often accompanied by orienting, stalking, and herding.
Grab	GB	To bite an object or another wolf, and to hold it firmly
Growl	G	A throaty rumbling vocalisation, usually low in pitch. May be used in aggressive or defensive interactions
Guard	GU	To stay by a preferred mate and attempt to drive off rivals. Alternatively, to drive other wolves away from any desired object, such as food
Hackles 1-4	H1-4	Piloerection of the fur along the spine, which tends to make the wolf look larger than it actually is. Hackles: 1=scruff/withers, 2=back, 3=rump and 4=tail.
Herd	HERD	Staring at and following another wolf persistently, so that the followed wolf is displaced and sometimes literally herded, as if it were a sheep and the other wolf a sheep dog. Often appears that the wolf being herded has no free choice as to where to go.
Hook	HOOK	To crook the foreleg around something and pull it toward oneself. May also be used to trip or attempt to trip another wolf during wrestling.
Inhibited Bite	IB	A bite without sufficient pressure to wound a wolf.
Jaw Spar	JS	Two wolves “fencing” with open jaws. As they block each other’s’ feints, neither actually closes its jaws.
Kick	KICK	To strike out with a hind leg
Knock Down	KD	To strike another wolf a sharp blow – usually with the chest and shoulders. This is often done by running into it, so that the other wolf falls to the ground.
Lumpy Whisker Bed	LWB	A description of muscle tension in the area of the vibrissae on a wolf’s upper lip to either side of the black fleshy part of its nose. It is a precursor to an agonistic pucker, and wrinkling of the nose, with the muscles just beginning to tense when an agonistic pucker is incipient. The muscles under the lower eyelids may also contract, giving a wolf with facial markings the appearance of shallow bags forming under its eyes. These “eye bags” are harder to spot in wolves with solid coloured faces. If a human can learn to pick up this subtle cue, some aggressive wolf-human interactions may be avoided.
Lunge	L	Rapid advance towards another wolf nearby. Usually will include piloerection, stiff forelegs, ears back, agonistic pucker, snap, and sometimes an

		inhibited bite. The approach may actually take the form of a short jump and/or a few running steps
Muzzle Bite-Hard	MBT	Grabbing the muzzle and applying enough pressure to make the grabbed wolf whimper. Muzzle biting is often accompanied by other threat behaviours which may also elicit whimpering
Pin	P	Lunge and bite (often an inhibited bite) at the neck of another wolf or making a muzzle bite – hard, forcing it to the ground and holding it there.
Point	POINT	To Stand on three legs with the head and neck level with the back or slightly above or below. The wolf has one foreleg lifted, flexed at the wrist as if pointing with its wrist. This is essentially a stationary phase, a sort of behavioural freeze frame, in stalking
Rush	RUSH	A short run directed at another wolf, an object, or prey – as if the lunge were lengthened by several yard.
Snap	SN	A rapid bite that has a little contact with its object. As the wolf’s jaws come together, the teeth make an audible sound
Stand Over	STD-O	Straddling a recumbent wolf. Typically, standing across the recumbent wolf, but a wolf may also straddle another along its longitudinal axis. It may or may not try to provoke a response from the resting wolf and try to prevent it from getting up. Longitudinal orientation may be head to head or head to tail
Stand Tall	STAND TALL	A wolf draws itself up to its full height. The neck is often arched and the ears pricked. It may stare at another wolf. The tail, if not already carried high, may rise. Some wolves stand well up on their toes as if trying to get on “tiptoe”. This behaviour is seen during threat displays and also during courtship. Its effect is sometimes enhanced by raised hackles
Stare	STARE	An intense fixed gaze. In social encounters, the stare may have a “hard” quality
Tail Position 1-4	T1-4	T1=Tail above the level of the back T2=Tail level with the back T3=Tail below the level of the back T3.5=Tail brushing the hooks T4=Tail between the legs. It may touch the belly in some cases. T1 in a circle=tail curved over back in a circle-not as tight as a sled dog’s tail curve
Threaten	TH	A general term useful when action is so fact that some detail must be sacrificed. Includes but is not limited to behaviours such as staring, growling, agonistic puckers, lateral displays, hackles, lunges, snaps, and ambushes
Tug-of-war	T-W	Two wolves taking hold of different parts of an object and tugging vigorously against each other.
Whirl	WHIRL	To spin around rapidly, usually to confront another wolf

Woof	WF	One of the three types of barks. It may sound soft and breathy like a cough or be louder and more explosive. It may also segue into growl barks
Wrestle	WR	Stand together on hind legs, front legs on others shoulders, usually silent and with open mouth. Involves a lot of rapid shifting body contact, including shoving, gripping, grabs, inhibited bites, and attempts to pin or know down

Sex-Related Aggression

Agonistic Pucker	AP	Vertical retraction of the lips. Self-confident animal will simultaneously bring the corners of the mouth forward so only the canines and incisors are exposed (APC) Fearful animal will draw the corners of the mouth back, exposing the corners of the mouth back, exposing some pre-molars (APF)
Ambush	AM	Lying in a sphinx posture, staring intently at another wolf or at prey. If done standing, the ambushing wolf tends to have its head level with, or more commonly lower than its back.
Approach	APP	Movement toward another individual often used as part of threat or sexual behaviours. The combination of other expressive behaviours will give reason for the approach.
Bark	BK	There are three basic types of bark: Breathly Woof, Growl Bark and the Bow Wow.
Bite	BT	To close jaws and teeth on another. Indicates an uninhibited bite which often causes wounds.
Buck Off	BOFF	A means of dislodging a wolf who has mounted or is riding up. Short jump directly up, arching its spine slightly. Forefeet are braced and the jump is made mainly with the hind quarters. Bucking may take place as the wolf moves forward and may be augmented by attempts to turn, whirl and snap.
Chase	CS	Chase another animal, usually with ears back and pioerect
Chin Rest	CHR	Placing the head across the back or shoulders of another wolf. Seems to be a way to assess the other wolf's response to a weight on its back - e.g., prior to a mount
Choke	CHOKE	Done to another wolf by squeezing its windpipe
Coat	COAT	Mounting without clasping. Scruff may be gripped in the mouth of the wolf performing the mount.
Fight	FT	A general term for high intensity, aggressive, often damaging encounters. A fight between two or three wolves will become a mobbing as more wolves join, and focus their attention on one wolf.
Fuss	FUSS	An inclusive term covering such things as grinning + agonistic pucker + yarl + inhibited bite and the wolf's throwing itself on the ground. Usually performed by females during a tie which appears to be uncomfortable.
Growl	G	A throaty rumbling vocalisation, usually low in pitch. May be used in aggressive or defensive interactions

Guard	GU	To stay by a preferred mate and attempt to drive off rivals. Alternatively, to drive other wolves away from any desired object, such as food
Hackles 1-4	H 1-4	Piloerection of the fur along the spine, which tends to make the wolf look larger than it actually is. Hackles: 1=scruff/withers, 2=back, 3=rump and 4=tail.
Herd	HERD	Staring at and following another wolf persistently, so that the followed wolf is displaced and sometimes literally herded, as if it were a sheep and the other wolf a sheep dog. Often appears that the wolf being herded has no free choice as to where to go.
Hook	HOOK	To crook the foreleg around something and pull it toward oneself. May also be used to trip or attempt to trip another wolf during wrestling.
Inhibited Bite	IB	A bite without sufficient pressure to wound a wolf.
Jaw Punch	JPCH	A hard poke or punch with the muzzle, mouth closed. Often precedes a bite and is used to intimidate. It lacks the upward motion of the nose nudge and may follow besnuffling.
Jaw Spar	JS	Two wolves “fencing” with open jaws. As they block each other’s feints, neither actually closes its jaws.
Kick	KICK	To strike out with a hind leg
Knock Down	KD	To strike another wolf a sharp blow – usually with the chest and shoulders. This is often done by running into it, so that the other wolf falls to the ground.
Lateral Display	LAT-DISP	A wolf stands broadside to another, standing tall, head up, ears pricked, T1 or T2, usually some hackles and it may try to force eye contact
Lumpy Whisker Bed	LWB	A description of muscle tension in the area of the vibrissae on a wolf’s upper lip to either side of the black fleshy part of its nose. It is a precursor to an agonistic pucker, and wrinkling of the nose, with the muscles just beginning to tense when an agonistic pucker is incipient. The muscles under the lower eyelids may also contract, giving a wolf with facial markings the appearance of shallow bags forming under its eyes. These “eye bags” are harder to spot in wolves with solid coloured faces. If a human can learn to pick up this subtle cue, some aggressive wolf-human interactions may be avoided.
Lunge	L	Rapid advance towards another wolf nearby. Usually will include piloerection, stiff forelegs, ears back, agonistic pucker, snap, and sometimes an inhibited bite. The approach may actually take the form of a short jump and/or a few running steps
Molest	MOL	To show threat or harassment superimposed upon or in quick alternation with sexual solicitation
Mouth	M	To hold with the mouth, repeatedly changing grip. To manipulate with the mouth.
Muzzle Bite-Hard	MBT	Grabbing the muzzle and applying enough pressure to make the grabbed wolf whimper. Muzzle biting

		is often accompanied by other threat behaviours which may also elicit whimpering
Pin	P	Lunge and bite (often an inhibited bite) at the neck of another wolf or making a muzzle bite – hard, forcing it to the ground and holding it there.
Pin Wheel	PIN WHEEL	If two wolves are tied and either or both begins struggling to free itself, they may end up spinning around threatening each other or even escalating to a ritualised attack. Gaping may occur, together with yarling and shrieking, and inhibited bites may be exchanged or the pair may jaw spar.
Point	POINT	To Stand on three legs with the head and neck level with the back or slightly above or below. The wolf has one foreleg lifted, flexed at the wrist as if pointing with its wrist. This is essentially a stationary phase, a sort of behavioural freeze frame, in stalking
Pull	PULL	To grab another wolf and draw it along, without the pulled wolf being recumbent. Wolves will sometimes pull each other by the tail or leg or scruff as well as the fur or the ear. The wolf being pulled typically remains on its feet and may brace and resist being pulled, or may try to make the puller let go by struggling and biting. If pulled by a leg, the wolf may hop along trying to stay on its feet (even hopping backwards if one of its hind legs is being used as a handle) while it tries to make the other wolf release it
Rebuff	RB	A general term for rejecting a suitor and driving him or her away. Rebuff's may take the form of actual threats, even ritualised attacks. Sometimes oestrous females rebuff suitors by sitting when the male tries to investigate their genitals
Rush	RUSH	A short run directed at another wolf, an object, or prey – as if the lunge were lengthened by several yard.
Sit	SIT	The wolf's forelegs are straight, or slanting in front of the wolf; its rump, tail and hind legs from hook to paw are all on the ground. Its back slopes down to the ground. Sometimes, especially in young wolves, the hind legs (one or both) may sprawl or stretch to the side. The head I up and the tail is often straight out behind.
Snap	SN	A rapid bite that has a little contact with its object. As the wolf's jaws come together, the teeth make an audible sound
Stand Over	STD-O	Straddling a recumbent wolf. Typically, standing across the recumbent wolf, but a wolf may also straddle another along its longitudinal axis. It may or may not try to provoke a response from the resting wolf and try to prevent it from getting up. Longitudinal orientation may be head to head or head to tail
Stand Tall	STAND TALL	A wolf draws itself up to its full height. The neck is often arched and the ears pricked. It may stare at another wolf. The tail, if not already carried high, may rise. Some wolves stand well up on their toes

		as if trying to get on “tiptoe”. This behaviour is seen during threat displays and also during courtship. Its effect is sometimes enhanced by raised hackles
Stare	STARE	An intense fixed gaze. In social encounters, the stare may have a “hard” quality
Tail Position 1-4	T1-4	T1=Tail above the level of the back T2=Tail level with the back T3=Tail below the level of the back T3.5=Tail brushing the hooks T4=Tail between the legs. It may touch the belly in some cases. T1 in a circle=tail curved over back in a circle-not as tight as a sled dog’s tail curve
Threaten	TH	A general term useful when action is so fact that some detail must be sacrificed. Includes but is not limited to behaviours such as staring, growling, agonistic puckers, lateral displays, hackles, lunges, snaps, and ambushes
Whirl	WHIRL	To spin around rapidly, usually to confront another wolf
Woof	WF	One of the three types of barks. It may sound soft and breathy like a cough or be louder and more explosive. It may also segue into growl barks
Wrestle	WR	Stand together on hind legs, front legs on others shoulders, usually silent and with open mouth. Involves a lot of rapid shifting body contact, including shoving, gripping, grabs, inhibited bites, and attempts to pin or know down
Yarl	YARL	A vocalisation sounding like jaulen or whimpering superimposed on a growl. It is a very shrill growl. A yarling wolf is usually defensive.

All-Out Attack

All-Out Attack	AA	Fighting, without inhibition that often leads to injury. Threat behaviours are usually not shown, except for raised hackles. Generally only seen in dominance fights or towards unfamiliar canines.
Approach	APP	Movement toward another individual often used as part of threat or sexual behaviours. The combination of other expressive behaviours will give reason for the approach.
Bite	BT	To close jaws and teeth on another. Indicates an uninhibited bite which often causes wounds.
Choke	CHOKER	Done to another wolf by squeezing its windpipe
Critical Reaction	CRIT-R	Intense aggressive behaviour – usually defensive and elicited. Can escalate into an all-out attack. Exhibited in wolves unable/unwilling to retreat – can be due to the lack of an avenue of retreat from an approaching animal/human who are not intending a threat
Drag	DRAG	To pull an object, such as food, or another wolf along the ground.
Grab	GB	To bite an object or another wolf, and to hold it firmly
Hackles	H1-4	Piloerection of the fur along the spine, which tends to make the wolf look larger than it actually is.

		Hackles: 1=scruff/withers, 2=back, 3=rump and 4=tail.
Head Shake	HSB	After a grab, the wolf shakes its head vigorously from side to side. Depending on whether muscle as well as hide is thus grabbed, on how much pressure is applied, and how violent the shaking is, the victim may sustain no injury, moderate to serious bruising, or even extensive muscle tearing and internal organ damage.
Jaw Spar	JS	Two wolves “fencing” with open jaws. As they block each other’s’ feints, neither actually closes its jaws.
Kick	KICK	To strike out with a hind leg
Killing Bite	KLBT	A bite which quickly causes death. There may be some readjustment or renewing of grip during a killing bite.
Lumpy Whisker Bed	LWB	A description of muscle tension in the area of the vibrissae on a wolf’s upper lip to either side of the black fleshy part of its nose. It is a precursor to an agonistic pucker, and wrinkling of the nose, with the muscles just beginning to tense when an agonistic pucker is incipient. The muscles under the lower eyelids may also contract, giving a wolf with facial markings the appearance of shallow bags forming under its eyes. These “eye bags” are harder to spot in wolves with solid coloured faces. If a human can learn to pick up this subtle cue, some aggressive wolf-human interactions may be avoided.
Lunge	L	Rapid advance towards another wolf nearby. Usually will include piloerection, stiff forelegs, ears back, agonistic pucker, snap, and sometimes an inhibited bite. The approach may actually take the form of a short jump and/or a few running steps
Mob	MB	Chasing, jaw sparring, biting, and/or wrestling or pinning by two or more wolves orienting to a third.
Mount	MT	Clasping another wolf between the forelegs and paws – usually from behind and sometime from the front
Pin	P	Lunge and bite (often an inhibited bite) at the neck of another wolf or making a muzzle bite – hard, forcing it to the ground and holding it there.
Stone Face	STNF	A neutral face of a threatening wolf. Except for the intensity of the stare, there are none of the expressive threats. If one of two wolves is greatly superior in rank and in its aggression, it will first of all demonstrate its rank in the usual way. Its attitude and movements will still be loose and its hackles stay flat. Aggressive motivation can be discerned only in its attack without inhibition, showing no other sign of its extreme aggressiveness
Tail Position 1-4	T1-4	T1=Tail above the level of the back T2=Tail level with the back T3=Tail below the level of the back T3.5=Tail brushing the hooks T4=Tail between the legs. It may touch the belly in some cases.

		T1 in a circle=tail curved over back in a circle-not as tight as a sled dog's tail curve
Tug	TG	Short pulling movements, during which the wolf's head is pulled back and its legs are braced against the direction of the pull
Tug-of-wolf's-name	T<name>	A tug-of-war with a wolf used as the "rope". The "-name" indicates which wolf is being tugged
Wrestle	WR	Stand together on hind legs, front legs on others shoulders, usually silent and with open mouth. Involves a lot of rapid shifting body contact, including shoving, gripping, grabs, inhibited bites, and attempts to pin or know down

Defence and Submission

Agonistic Pucker	AP	Vertical retraction of the lips. Self-confident animal will simultaneously bring the corners of the mouth forward so only the canines and incisors are exposed (APC) Fearful animal will draw the corners of the mouth back, exposing the corners of the mouth back, exposing some pre-molars (APF)
Airplane Ears	AE	Ears held out to the side, inner surface down, like the wings of an airplane. Can be seen in: grooming solicitation to humans or wolves, stalking or ambush.
Approach	APP	Movement toward another individual often used as part of threat or sexual behaviours. The combination of other expressive behaviours will give reason for the approach.
Avert Gaze	AV	Breaking eye contact. May not involve turning the head as well. Often seen as aggressive, threatening interactions
Avoid	A	Walking away from a wolf or situation. Faster gaits used for the same purpose are called escape. Avoidance may incorporate creeping.
Bark	BK	There are three basic types of bark: Breathly Woof, Growl Bark and the Bow Wow.
Bark-Howl	BK-H	A howl closely preceded by a bark. Howl is often hoarse. Alarm call/ warning.
Bite	BT	To close jaws and teeth on another. Indicates an uninhibited bite which often causes wounds.
Buck Off	BOFF	A means of dislodging a wolf who has mounted or is riding up. Short jump directly up, arching its spine slightly. Forefeet are braced and the jump is made mainly with the hind quarters. Bucking may take place as the wolf moves forward and may be augmented by attempts to turn, whirl and snap.
Crawl	CRAWL	To move forward by some pulling with the forelegs and pushing with the hind legs. The sternum and belly touch, or almost touch, the ground
Creep	CREEP	A crouch superimposed on a gait, typically the walk.
Critical Reaction	CRIT-R	Intense aggressive behaviour – usually defensive and elicited. Can escalate into an all-out attack. Exhibited in wolves unable/unwilling to retreat – can be due to the lack of an avenue of retreat from

		an approaching animal/human who are not intending a threat
Crouch	CROUCH	Legs are bent and the back is often arched. Overall effect makes the wolf appear hunched and smaller. Arched back is an important component which distinguishes this from the stalk. T4 is the usual tail position.
Defecate	DF	To excrete faeces. A fearful animal may defecate during a ritualised fight or when receiving an offensive threat. The faeces may be runny – sign of stress. A wolf who does this with T4 has what is called “diaper tail”
Ears Back	EB	Ears lowered and folded back against the sides of the head. The ears have a flattened appearance.
Ears Turned Sideways and Slanted Back	ETS	Apparently a combination, or superposition, of ears back and ears pricked, turned sideways.
EEE	EEE	Phonetic rendering of a squeal. Can be exhibited with grin, T4, slight agonistic pucker, crouch, and eyes squeezed shut.
Escape	ESC	To get away. To succeed in avoiding an attack, mobbing, or harassment. Escaping is done at a fast trot or a run, which distinguishes it from avoiding, which may be done at a walk or slow trot.
Gape	GAPE	Open mouth threat, ears back, oriented toward other wolf, lips retracted back both horizontally and vertically; often accompanies charge
Grab	GB	To bite an object or another wolf, and to hold it firmly
Grin	GRIN	The wolf’s lips are drawn back, but not up. Friendly, submissive, and greeting interactions – corners of the mouth may turn up. Defensive or threatening interactions – corners of the mouth turn down. The lips may be closer or open, but open is more common.
Growf	GROWF	A combination of growl, agonistic pucker, and snap, all performed very rapidly. May be augmented by a lunge and a tongue flick, as well as threat stares. The growfer may also show some piloerection (hackles).
Growl	G	A throaty rumbling vocalisation, usually low in pitch. May be used in aggressive or defensive interactions
Growl-Bark	G-BK	Barks and growls closely interspersed among or superimposed on each other
Hackles 1-4	H1-4	Piloerection of the fur along the spine, which tends to make the wolf look larger than it actually is. Hackles: 1=scruff/withers, 2=back, 3=rump and 4=tail.
Hug	HUG	To clasp around the neck or shoulders using one or both front legs. It is accompanied by greeting or submissive behaviour and there is no pelvic thrusting. Once in a while a hug will be used to hold the head and neck of an opponent skull
Ignore	IG	To be able to see another’s actions, yet make no observable response to them

Indirect Approach	IND APP	A nonlinear approach which is often made via a meandering path, a series of cures, or some casting around or back and forth as if the animal could be either searching for something or experiencing approach avoidance conflict. The wolf may have its ears somewhat back, and sniff the ground. It may look as if mere coincidence brings it into the social space of another. Often includes ambling. May be used as a means of approaching in a cautious non-threatening manner, incorporating expressive behaviours which have the effect of decreasing the intensity of either a socially threatening or predatory encounter.
Inguinal Present	ING-P	Female stands or walks with anogenital region oriented to males face, back often slightly arched, base of tail deflected up or to the side. Standing wolf rotates one hind leg out, making it easy for another wolf to insert its nose behind the stifle and sniff the abdominal area. A wolf lying down in passive submission lifts the uppermost hind leg, exposing the belly. It may half roll onto its back as well.
Inhibited Bite	IB	A bite without sufficient pressure to wound a wolf.
Jaulen	JL	(Pronounced “yowl-en”) A shrill, ululating vocalisation. The term is borrowed from German and might be colloquially translated as “yowling”.
Jaw Spar	JS	Two wolves “fencing” with open jaws. As they block each other’s’ feints, neither actually closes its jaws.
Kick	KICK	To strike out with a hind leg
Leave	LV	To go away
Lick	LK	To pass the tongue over.
Lick Intention	LKI	An extension and flicking of the tongue between the lips; a licking motion performed at a distance too great to reach its intended target. May manifest as a single small flick or several slurps of almost the full length of the tongue (length of tongue extension and number of repetitions will vary with context). Teeth may or may not be additionally bared.
Lumpy Whisker Bed	LWB	A description of muscle tension in the area of the vibrissae on a wolf’s upper lip to either side of the black fleshy part of its nose. It is a precursor to an agonistic pucker, and wrinkling of the nose, with the muscles just beginning to tense when an agonistic pucker is incipient. The muscles under the lower eyelids may also contract, giving a wolf with facial markings the appearance of shallow bags forming under its eyes. These “eye bags” are harder to spot in wolves with solid coloured faces. If a human can learn to pick up this subtle cue, some aggressive wolf-human interactions may be avoided.
Lunge	L	Rapid advance towards another wolf nearby. Usually will include piloerection, stiff forelegs, ears back, agonistic pucker, snap, and sometimes an

		inhibited bite. The approach may actually take the form of a short jump and/or a few running steps
Monkey Chatter	MC	A rare shrill chirpy chattering vocalisation accompanying offensive threats and defensive threats
Ottering	OTR	Play running with the legs remaining well bent. The wolf therefore shows a lowered profile and typically has a convex top line. Usually ottering is done in a relatively small space, quite close to another wolf. This may be used as an invitation to play or as part of courtship. An ottering wolf usually carries its ears back or turned sideways and slanted back. Grinning during ottering is very common. Ottering may stretch into a play run in which the legs are extended more and the top line loses some of its convexity.
Panic Attack	PA	An extreme fear response. Ears are back, and there may be trembling in the legs and whole body. Rapid breathing may be seen – often but not always due to running. Sometimes the wolf may woof. Panic attacks may or may not include aggression. Usually, if the wolf has the option of retreating, it will run away, tail tucked and often defecating as it goes. When running, the wolf runs at or near top speed, sometimes tripping or running into things.
Paw	PW	To extend or wave the paw, using it to touch another or stroking the air in front of another. Sometimes, as with an intimidated animal, the foreleg is held up and the paw given a limited wave from the knee to the foot
Pin Wheel	PIN WHEEL	If two wolves are tied and either or both begins struggling to free itself, they may end up spinning around threatening each other or even escalating to a ritualised attack. Gaping may occur, together with yarling and shrieking, and inhibited bites may be exchanged or the pair may jaw spar.
Pony-Tail Ears	PTE	Ears laid flat pulled so far back that they meet, or nearly do, behind the occipital crest
Refuge	REF	To seek shelter. A defensive behaviour often used when a wolf is mobbed or attacked
Roll On Back	ROL-BK	After lying down on its ventral surface or side, the animal rotates its body on the longitudinal axis, coming to rest on the dorsal surface. The forelegs may assume various positions and the hind legs may relax and rotate out to the side from the hip joint
Shiver	SHIVER	The animal trembles rapidly. Quivering may extend to its legs as well as the torso and head.
Shriek	SHRIEK	A loud, shrill scream which lacks the ululation of jaulen
Snap	SN	A rapid bite that has a little contact with its object. As the wolf's jaws come together, the teeth make an audible sound
Squeal	SQUEAL	A shrill vocalisation made with one long exhalation lacking the "sobbing" of a whimper. A squeal is also more drawn out than a "whine", or "yipe". Not as loud as a shriek

Squirm	SQUIRM	To writhe and wriggle. The wolf's goal is often to extricate itself from a grab, pin, squash, etc., and squirming is often augmented by kicking, inhibited bites etc.
Submission-Active	S-A	Persistent licking of another wolf's muzzle while crouching with tail tucked in (T4) or wagging. The tail may be wagging while tucked. Also, the wolf paws at the other's face. Active submission is distinguished from greeting by the crouch and tucked tail
Submission-Obnoxious	S-O	Behaviour is ostensibly submissive or greeting but they do it so vigorously and persistently that they may actually displace a higher ranking animal. Sometimes the submissive wolf actually pursues the higher ranking wolf as it quickly leaves to avoid being tripped, poked and effusively licked. The higher ranking wolf typically maintains confident expressive behaviours including growling, agonistic puckers, high tail carriage (T1), locomotion characterised by stepping higher than usual, muzzle bites, etc., but also tends to leave the subordinate wolf rapidly
Submissive-Passive	S-P	<ol style="list-style-type: none"> 1. Falling or laying on the side or back, often raising a hind leg to inguinal present. The ears are flattened and the tail may be between the legs (T4) 2. Sometimes the wolf sits or crouches, again attempting an inguinal presentation, but does not attempt any greeting behaviour or active appeasement. Though still on its feet, its behaviour is passive rather than active
Tail Position 1-4	T1-4	<p>T1=Tail above the level of the back T2=Tail level with the back T3=Tail below the level of the back T3.5=Tail brushing the hooks T4=Tail between the legs. It may touch the belly in some cases.</p> <p>T1 in a circle=tail curved over back in a circle-not as tight as a sled dog's tail curve</p>
Tail Wag	TW	Movement of the tail up and down, side to side repeatedly.
Test	TEST	Refers to both hunting of prey, in which the wolves approach prey, observe their reaction and select an individual vulnerable enough to catch, and also to a complex of behaviours, some subtle, some blatant, by which a wolf gauges another wolf's confidence and social freedom and how firmly it occupies its social rank. Testing of non-prey may or may not involve overt aggression.
Threaten	TH	A general term useful when action is so fact that some detail must be sacrificed. Includes but is not limited to behaviours such as staring, growling, agonistic puckers, lateral displays, hackles, lunges, snaps, and ambushes
Urinate	U	To excrete urine. Raised leg urination, squat urination, and standing urination are the typical

		postures. A fearful, submissive wolf, and submissive young pups, may lose sphincter control and urinate involuntarily in a variety of postures, including passive submission -1
Whimper	WHIP	A fairly constant high pitched monotone which appears to be a series of rapid exhalations or “pushes” from the diaphragm
Whirl	WHIRL	To spin around rapidly, usually to confront another wolf
Yarl	YARL	A vocalisation sounding like jaulen or whimpering superimposed on a growl. It is a very shrill growl. A yarling wolf is usually defensive.

Offensive Threat

Agonistic Pucker	AP	Vertical retraction of the lips. Self-confident animal will simultaneously bring the corners of the mouth forward so only the canines and incisors are exposed (APC) Fearful animal will draw the corners of the mouth back, exposing the corners of the mouth back, exposing some pre-molars (APF)
Airplane Ears	AE	Ears held out to the side, inner surface down, like the wings of an airplane. Can be seen in: grooming solicitation to humans or wolves, stalking or ambush.
Ambush	AM	Lying in a sphinx posture, staring intently at another wolf or at prey. If done standing, the ambushing wolf tends to have its head level with, or more commonly lower than its back.
Approach	APP	Movement toward another individual often used as part of threat or sexual behaviours. The combination of other expressive behaviours will give reason for the approach.
Avert Gaze	AV	Breaking eye contact. May not involve turning the head as well. Often seen as aggressive, threatening interactions
Bark	BK	There are three basic types of bark: Breathy Woof, Growl Bark and the Bow Wow.
Besnuffle	BESNF	To sniff in a slow, exaggerated way. May include a circular rooting motion with the nose. Tends to precede bites which are hard, but still inhibited, and sometimes precedes grooming
Bow-Stretch	BW-STR	Combination of bow and stretch. The movement is slow, and the toes of the forepaws may also be stretched and fanning. Elbows usually do not touch the ground.
Chase	CS	Chase another animal, usually with ears back and proerect
Chin Rest	CHR	Placing the head across the back or shoulders of another wolf. Seems to be a way to assess the other wolf's response to a weight on its back - e.g., prior to a mount
Choke	CHOKE	Done to another wolf by squeezing its windpipe
Circle	CIR	To walk around an object or another individual
Coat	COAT	Mounting without clasping. Scruff may be gripped in the mouth of the wolf performing the mount.

Face-Off	F-O	A very stiff stance with two wolves facing each other, heads side by side. Usually one or both have the T1 or T2 position
Fence	F	Threatening through the fence. May include strutting and “muscle poses”, standing tall, staring, raised hackles, or running back and forth along the fence
Follow	FOL	To gait behind another animal, orienting to it specifically and changing direction as needed to remain behind it. A constant distance is sometimes maintained.
Gape	GAPE	Open mouth threat, ears back, oriented toward other wolf, lips retracted back both horizontally and vertically; often accompanies charge
Growl	G	A throaty rumbling vocalisation, usually low in pitch. May be used in aggressive or defensive interactions
Growl-Bark	G-BK	Barks and growls closely interspersed among or superimposed on each other
Harass	HR	Repeated threats, or mock attack, on a wolf.
Head Shake	HSH	After a grab, the wolf shakes its head vigorously from side to side. Depending on whether muscle as well as hide is thus grabbed, on how much pressure is applied, and how violent the shaking is, the victim may sustain no injury, moderate to serious bruising, or even extensive muscle tearing and internal organ damage.
Herd	HERD	Staring at and following another wolf persistently, so that the followed wolf is displaced and sometimes literally herded, as if it were a sheep and the other wolf a sheep dog. Often appears that the wolf being herded has no free choice as to where to go.
Sniff Inguinal Region	ING SNF	Sniffing just in front of the stifle or putting the nose to the area of abdomen between and posterior to the stifles
Inhibited Bite	IB	A bite without sufficient pressure to wound a wolf.
Jaw Punch	JPCH	A hard poke or punch with the muzzle, mouth closed. Often precedes a bite and is used to intimidate. It lacks the upward motion of the nose nudge and may follow besnuffling.
Knock Down	KD	To strike another wolf a sharp blow – usually with the chest and shoulders. This is often done by running into it, so that the other wolf falls to the ground.
Lateral Display	LAT DISP	A wolf stands broadside to another, standing tall, head up, ears pricked, T1 or T2, usually some hackles and it may try to force eye contact
Lumpy Whisker Bed	LWB	A description of muscle tension in the area of the vibrissae on a wolf’s upper lip to either side of the black fleshy part of its nose. It is a precursor to an agonistic pucker, and wrinkling of the nose, with the muscles just beginning to tense when an agonistic pucker is incipient. The muscles under the lower eyelids may also contract, giving a wolf with facial markings the appearance of shallow bags forming under its eyes. These “eye bags” are harder

		to spot in wolves with solid coloured faces. If a human can learn to pick up this subtle cue, some aggressive wolf-human interactions may be avoided.
Lunge	L	Rapid advance towards another wolf nearby. Usually will include piloerection, stiff forelegs, ears back, agonistic pucker, snap, and sometimes an inhibited bite. The approach may actually take the form of a short jump and/or a few running steps
Measure	MEAS	A type of inhibited bite in which the wolf gently puts its jaws on or around the body part of another as if using its jaws as callipers to gauge the size of the thing measured. A wolf may measure an individual once, and stop, or escalate the interaction by measuring several times and the close the jaws, giving a sharp, even bruising pinch.
Mob	MB	Chasing, jaw sparring, biting, and/or wrestling or pinning by two or more wolves orienting to a third.
Monkey Chatter	MC	A rare shrill chirpy chattering vocalisation accompanying offensive threats and defensive threats
Mount	MT	Clasping another wolf between the forelegs and paws – usually from behind and sometime from the front
Muzzle Bite-Hard	MBT	Grabbing the muzzle and applying enough pressure to make the grabbed wolf whimper. Muzzle biting is often accompanied by other threat behaviours which may also elicit whimpering
Piggy Back	PGBK	Continuing to “ride” another wolf in the mounted position, despite the other wolf’s walking, trotting, running, bouncing or bucking. Usually seen during courtship or wrestling – either playful or involving over aggression. Usually brief in duration.
Pin	P	Lunge and bite (often an inhibited bite) at the neck of another wolf or making a muzzle bite – hard, forcing it to the ground and holding it there.
Point	POINT	To Stand on three legs with the head and neck level with the back or slightly above or below. The wolf has one foreleg lifted, flexed at the wrist as if pointing with its wrist. This is essentially a stationary phase, a sort of behavioural freeze frame, in stalking
Ride Up	RD-P	Resting forelegs or paws on or across the back of another wolf, from the side (as distinguished from mounting, “riding up” from the rear)
Roar	ROAR	A loud, deep voiced bellow with open mouth. Projects well
Rush	RUSH	A short run directed at another wolf, an object, or prey – as if the lunge were lengthened by several yard.
Snap	SN	A rapid bite that has a little contact with its object. As the wolf’s jaws come together, the teeth make an audible sound
Sniff Genitals	SNF-GEN	Sniffing directed towards the genitals of another wolf. This is done frequently during courtship and is also done during greeting and mutual

		investigation as well as to young pups in conjunction with stimulating them to eliminate.
Stalk	ST	Ears erect and forward, body tense and either standing or moving slowly with attention focused forward
Stand Tall	STAND TALL	A wolf draws itself up to its full height. The neck is often arched and the ears pricked. It may stare at another wolf. The tail, if not already carried high, may rise. Some wolves stand well up on their toes as if trying to get on "tiptoe". This behaviour is seen during threat displays and also during courtship. Its effect is sometimes enhanced by raised hackles
Stare	STARE	An intense fixed gaze. In social encounters, the stare may have a "hard" quality
Stone Face	STNF	A neutral face of a threatening wolf. Except for the intensity of the stare, there are none of the expressive threats. If one of two wolves is greatly superior in rank and in its aggression, it will first of all demonstrate its rank in the usual way. Its attitude and movements will still be loose and its hackles stay flat. Aggressive motivation can be discerned only in its attack without inhibition, showing no other sign of its extreme aggressiveness
T-Formation	T-F	One individual approaches the shoulder region of another head on, so that, viewed from above, the two animals make a capital "T". A male may approach a female in oestrous this way and often an aggressive individual will make the approach, taking the position at the "T"'s stem. A confident animal will sometimes deliberately take the position at the top of the "T". The wolf at the stem position of the T-formation may ride up on the other
Tail Position 1-4	T1-4	T1=Tail above the level of the back T2=Tail level with the back T3=Tail below the level of the back T3.5=Tail brushing the hooks T4=Tail between the legs. It may touch the belly in some cases. T1 in a circle=tail curved over back in a circle-not as tight as a sled dog's tail curve
Tail Wag	TW	Movement of the tail up and down, side to side repeatedly.
Test	TEST	Refers to both hunting of prey, in which the wolves approach prey, observe their reaction and select an individual vulnerable enough to catch, and also to a complex of behaviours, some subtle, some blatant, by which a wolf gauges another wolf's confidence and social freedom and how firmly it occupies its social rank. Testing of non-prey may or may not involve overt aggression.
Threaten	TH	A general term useful when action is so fact that some detail must be sacrificed. Includes but is not limited to behaviours such as staring, growling, agonistic puckers, lateral displays, hackles, lunges, snaps, and ambushes

Wrestle	WR	Stand together on hind legs, front legs on others shoulders, usually silent and with open mouth. Involves a lot of rapid shifting body contact, including shoving, gripping, grabs, inhibited bites, and attempts to pin or know down
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Ritualised Attack, Counter Attack, Fight

Agonistic Pucker	AP	Vertical retraction of the lips. Self-confident animal will simultaneously bring the corners of the mouth forward so only the canines and incisors are exposed (APC) Fearful animal will draw the corners of the mouth back, exposing the corners of the mouth back, exposing some pre-molars (APF)
Airplane Ears	AE	Ears held out to the side, inner surface down, like the wings of an airplane. Can be seen in: grooming solicitation to humans or wolves, stalking or ambush.
Approach	APP	Movement toward another individual often used as part of threat or sexual behaviours. The combination of other expressive behaviours will give reason for the approach.
Bark	BK	There are three basic types of bark: Breathly Woof, Growl Bark and the Bow Wow.
Bite	BT	To close jaws and teeth on another. Indicates an uninhibited bite which often causes wounds.
Chase	CS	Chase another animal, usually with ears back and piloerect
Chin Rest	CHR	Placing the head across the back or shoulders of another wolf. Seems to be a way to assess the other wolf's response to a weight on its back - e.g., prior to a mount
Choke	CHOKE	Done to another wolf by squeezing its windpipe
Circle	CIR	To walk around an object or another individual
Coat	COAT	Mounting without clasping. Scruff may be gripped in the mouth of the wolf performing the mount.
Fence Fight	FF	Fighting through the fence. May include barking. Includes aspects of fence but is distinguished primarily by attempts to bite or make body contact with the animal on the other side of the fence, and also to dissect the fence.
Fight	FT	A general term for high intensity, aggressive, often damaging encounters. A fight between two or three wolves will become a mobbing as more wolves join, and focus their attention on one wolf.
Foreleg Grab	FLG	A wolf seizes an opponent's, or a mate's, foreleg in its mouth
Grab	GB	To bite an object or another wolf, and to hold it firmly
Growl	G	A throaty rumbling vocalisation, usually low in pitch. May be used in aggressive or defensive interactions
Growl-Bark	G-BK	Barks and growls closely interspersed among or superimposed on each other
Hackles 1-4	H1-4	Piloerection of the fur along the spine, which tends to make the wolf look larger than it actually is.

		Hackles: 1=scruff/withers, 2=back, 3=rump and 4=tail.
Harass	HR	Repeated threats, or mock attack, on a wolf.
Inhibited Bite	IB	A bite without sufficient pressure to wound a wolf.
Jaw Punch	JPCH	A hard poke or punch with the muzzle, mouth closed. Often precedes a bite and is used to intimidate. It lacks the upward motion of the nose nudge and may follow besnuffling.
Jaw Spar	JS	Two wolves “fencing” with open jaws. As they block each other’s feints, neither actually closes its jaws.
Jump	JP	To leap into the air
Kick	KICK	To strike out with a hind leg
Knock Down	KD	To strike another wolf a sharp blow – usually with the chest and shoulders. This is often done by running into it, so that the other wolf falls to the ground.
Lateral Display	LAT DISP	A wolf stands broadside to another, standing tall, head up, ears pricked, T1 or T2, usually some hackles and it may try to force eye contact
Lumpy Whisker Bed	LWB	A description of muscle tension in the area of the vibrissae on a wolf’s upper lip to either side of the black fleshy part of its nose. It is a precursor to an agonistic pucker, and wrinkling of the nose, with the muscles just beginning to tense when an agonistic pucker is incipient. The muscles under the lower eyelids may also contract, giving a wolf with facial markings the appearance of shallow bags forming under its eyes. These “eye bags” are harder to spot in wolves with solid coloured faces. If a human can learn to pick up this subtle cue, some aggressive wolf-human interactions may be avoided.
Lunge	L	Rapid advance towards another wolf nearby. Usually will include piloerection, stiff forelegs, ears back, agonistic pucker, snap, and sometimes an inhibited bite. The approach may actually take the form of a short jump and/or a few running steps
Mob	MB	Chasing, jaw sparring, biting, and/or wrestling or pinning by two or more wolves orienting to a third.
Muzzle Bite-Hard	MBT	Grabbing the muzzle and applying enough pressure to make the grabbed wolf whimper. Muzzle biting is often accompanied by other threat behaviours which may also elicit whimpering
Piggy Back	PGBK	Continuing to “ride” another wolf in the mounted position, despite the other wolf’s walking, trotting, running, bouncing or bucking. Usually seen during courtship or wrestling – either playful or involving over aggression. Usually brief in duration.
Pin	P	Lunge and bite (often an inhibited bite) at the neck of another wolf or making a muzzle bite – hard, forcing it to the ground and holding it there.
Pin Wheel	PIN WHEEL	If two wolves are tied and either or both begins struggling to free itself, they may end up spinning around threatening each other or even escalating to a ritualised attack. Gaping may occur, together with

		yarling and shrieking, and inhibited bites may be exchanged or the pair may jaw spar.
Pull	PULL	To grab another wolf and draw it along, without the pulled wolf being recumbent. Wolves will sometimes pull each other by the tail or leg or scruff as well as the fur or the ear. The wolf being pulled typically remains on its feet and may brace and resist being pulled, or may try to make the puller let go by struggling and biting. If pulled by a leg, the wolf may hop along trying to stay on its feet (even hopping backwards if one of its hind legs is being used as a handle) while it tries to make the other wolf release it
Ride Up	RD-P	Resting forelegs or paws on or across the back of another wolf, from the side (as distinguished from mounting, “riding up” from the rear)
Ritualized Attack	RAT	A general term for an “attack with rules” in which there is a great deal of threat behaviour such as lunges, snaps, baring of teeth, raised hackles, growling etc. and also body contact such as bodily knocking down the opponent either with the shoulder by pivoting on the forelegs or by slamming the opponent over with the hindquarters (hipslam), by biting, jaw sparring, head shaking the other wolf, or pinning it and possibly remaining standing over it, i.e. straddling it and forcibly holding it down. Distinguished from the all-out attack by its inclusion of threat behaviour and its relative paucity of biting
Roar	ROAR	A loud, deep voiced bellow with open mouth. Projects well
Rush	RUSH	A short run directed at another wolf, an object, or prey – as if the lunge were lengthened by several yard.
Snap	SN	A rapid bite that has a little contact with its object. As the wolf’s jaws come together, the teeth make an audible sound
Squirm	SQUIRM	To writhe and wriggle. The wolf’s goal is often to extricate itself from a grab, pin, squash, etc., and squirming is often augmented by kicking, inhibited bites etc.
Stand Tall	STAND TALL	A wolf draws itself up to its full height. The neck is often arched and the ears pricked. It may stare at another wolf. The tail, if not already carried high, may rise. Some wolves stand well up on their toes as if trying to get on “tiptoe”. This behaviour is seen during threat displays and also during courtship. Its effect is sometimes enhanced by raised hackles
Stare	STARE	An intense fixed gaze. In social encounters, the stare may have a “hard” quality
Tail Position	T1-4	T1=Tail above the level of the back T2=Tail level with the back T3=Tail below the level of the back T3.5=Tail brushing the hooks T4=Tail between the legs. It may touch the belly in some cases.

		T1 in a circle=tail curved over back in a circle-not as tight as a sled dog's tail curve
Tamp	TAMP	A wolf uses its haunches to ram another against an obstacle or into a corner
Threaten	TH	A general term useful when action is so fast that some detail must be sacrificed. Includes but is not limited to behaviours such as staring, growling, agonistic puckers, lateral displays, hackles, lunges, snaps, and ambushes
Tug	TG	Short pulling movements, during which the wolf's head is pulled back and its legs are braced against the direction of the pull
Wrestle	WR	Stand together on hind legs, front legs on others shoulders, usually silent and with open mouth. Involves a lot of rapid shifting body contact, including shoving, gripping, grabs, inhibited bites, and attempts to pin or knock down
Yarl	YARL	A vocalisation sounding like jaulen or whimpering superimposed on a growl. It is a very shrill growl. A yarling wolf is usually defensive.

Abnormal/Stereotypic Behaviour

Pacing	ASP	Continuous locomotive movement from left to right in a straight line pacing the feet exactly in the same position each way
Circling	ASC	Locomotive movement in the same path in a longer or less circling pattern
Swaying	ASS	Rocking motion of the head from side to side continuously and/or leaping in the air
Stereotypy	Ss	Any repetitive movement of a body part (such as head or limb) will be noted down under this code. The behaviour pattern must have been previously exhibited in the same ritualised manner previously in the session. Can be exhibited while on land or in water.
Vigilance	ASV	Repeatedly looking towards the visitors (higher intensity than a general interest in the visitors)
Avoidance	ASA	Active avoidance of visitors
Infant Shielding/Clinging	ASISC	Over protective of youngsters/ constantly seeking reassurance from conspecifics – can indicate fear
Aggression	Aa	Tension caused by a stressful stimulus can result in increased intra-group aggression, or even aggression directed at humans
Self-Directed Behaviour	ASSD	Excessive grooming or self-biting behaviour