

Supplementary Material 3 – Precisions of identification models

Table S21. Precision for modelling round 1. CRF = Collar Random Forest, HRF = Harness Random Forest, CSOM = Collar Self-Organizing Map, HSOM = Harness Self-Organizing Map, N/A = not available.

	CRF	HRF	CSOM	HSOM
Climbing	N/A	0.250	N/A	N/A
Jumping	0.800	0.286	N/A	N/A
Rubbing	0.833	0.526	0.455	1.000
Trotting	0.500	0.500	0.269	0.455
Walking	0.528	0.571	0.962	0.969
Lying	0.830	0.934	1.000	0.999
Sitting	0.772	0.845	1.000	1.000
Standing	0.572	0.595	0.999	0.990
Grooming	0.668	0.737	0.997	0.998
Littering	0.829	0.810	1.000	0.394
Digging	N/A	0.714	N/A	1.000
Eating	0.730	0.874	1.000	0.997
Scratching	0.788	0.878	1.000	0.394
Shaking	0.333	1.000	0.427	0.283
Allogrooming	N/A	1.000	N/A	N/A

Table S22. Precision for modelling round 2. CRF = Collar Random Forest, HRF = Harness Random Forest, CSOM = Collar Self-Organizing Map, HSOM = Harness Self-Organizing Map, N/A = not available.

	CRF	HRF	CSOM	HSOM
Active	0.629	0.612	0.980	0.988
Lying	0.836	0.937	0.999	1.000
Sitting	0.786	0.874	0.999	1.000
Standing	0.611	0.605	0.999	0.992
Grooming	0.706	0.753	0.999	0.997
Littering	0.837	0.800	1.000	1.000
Eating	0.755	0.907	1.000	1.000
Scratching	0.855	0.894	1.000	1.000

Table S23. Precision for modelling round 3. CRF = Collar Random Forest, HRF = Harness Random Forest, CSOM = Collar Self-Organizing Map, HSOM = Harness Self-Organizing Map.

	CRF	HRF	CSOM	HSOM
Active	0.625	0.636	0.979	0.982
Lying	0.822	0.936	1.000	1.000
Sitting	0.794	0.868	1.000	1.000
Standing	0.607	0.602	1.000	1.000
Grooming	0.747	0.890	1.000	1.000
Eating	0.397	0.451	0.826	0.997

Table S24. Precision for modelling round 3. CRF = Collar Random Forest, HRF = Harness Random Forest, CSOM = Collar Self-Organizing Map, HSOM = Harness Self-Organizing Map.

	CRF	HRF	CSOM	HSOM
Active	0.807	0.788	0.997	0.997
Inactive	0.837	0.858	1.000	1.000
Maintenance	0.839	0.829	1.000	0.999