All_SnapshotSafariModels

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Overview

This report shows results from models trained to identify empty images ('Empty or Not' model) and species images ('Species' model). This report contains results from:

- Site: All
- Season:
- ID: All_SnapshotSafariModels

All figures have been calculated based on a test set (5% of the total data set).

The most important figures are:

- Empty model total number of captures: 71702

- Empty model overall accuracy: 96.03 %

- Empty model overall accuracy (high confidence): 99.5 %

- Empty model share of high confidence predictions: 74.38 %

- Species model total number of images: 36469

- Species model overall accuracy: 8939 %

- Species model overall accuracy (high confidence): 9720 %

- Species model share of high confidence predictions: 69.53 %

- Moving (Accuracy / Recall): 82.32 / 97.3 %

- Eating (Accuracy / Recall): 88.18 / 96.55 %

- Standing (Accuracy / Recall): 79.64 / 98.1 %

- Interacting (Accuracy / Recall): 98.98 / 0 %

- Young Present (Accuracy / Recall): 97.32 / 5.51 %

Empty or Not-Model Evaluations

The following figures show evaluations of the 'Empty or Not' model.

Evaluation per Location / Park

Empty Model Accuracy: All_ResNet18_448_v1
Total acc: 0.894 (0.972 high confidence)
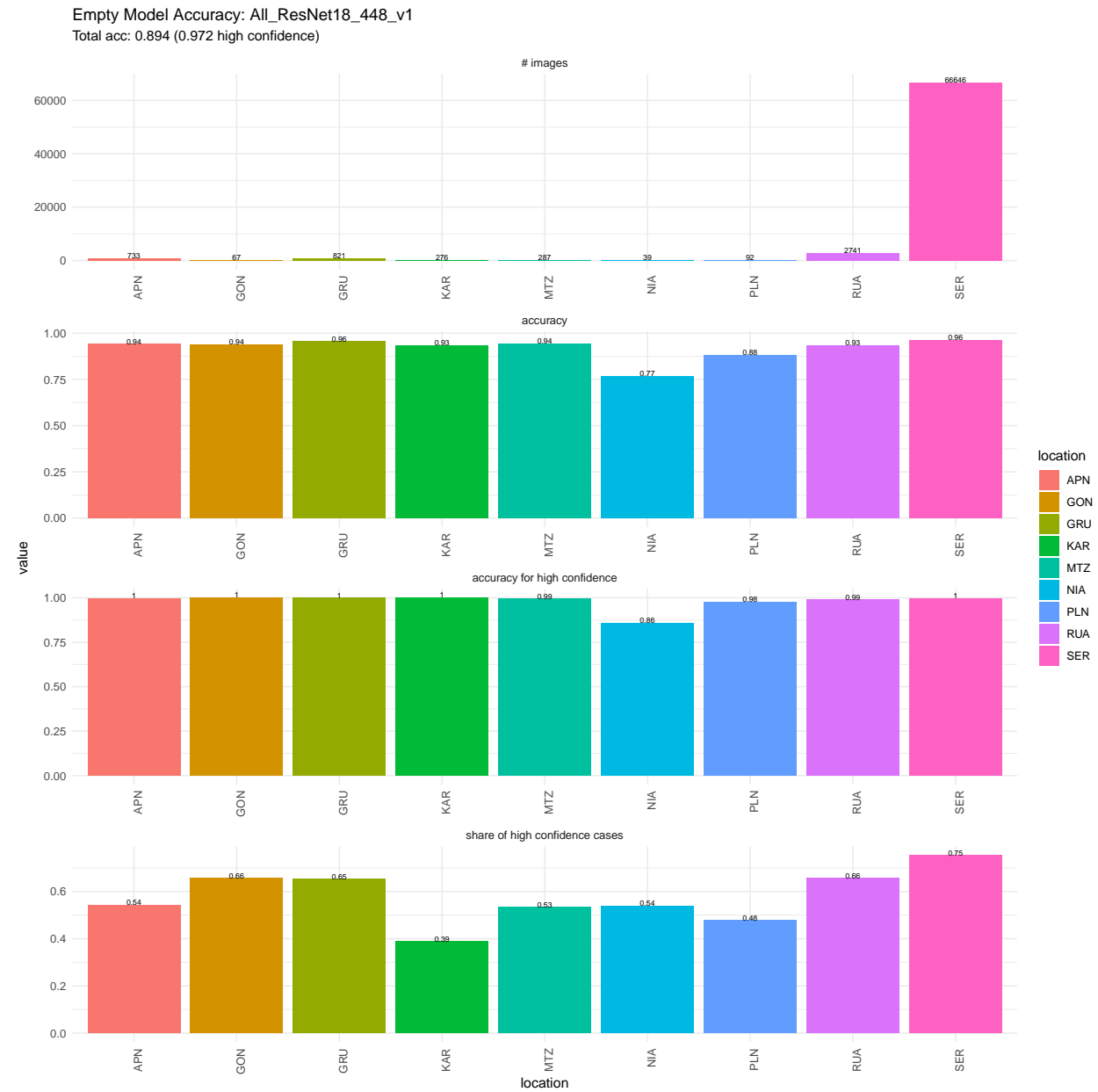
Evaluation Empty Model – All_ResNet18_448_v1

is_blank – True vs Predicted
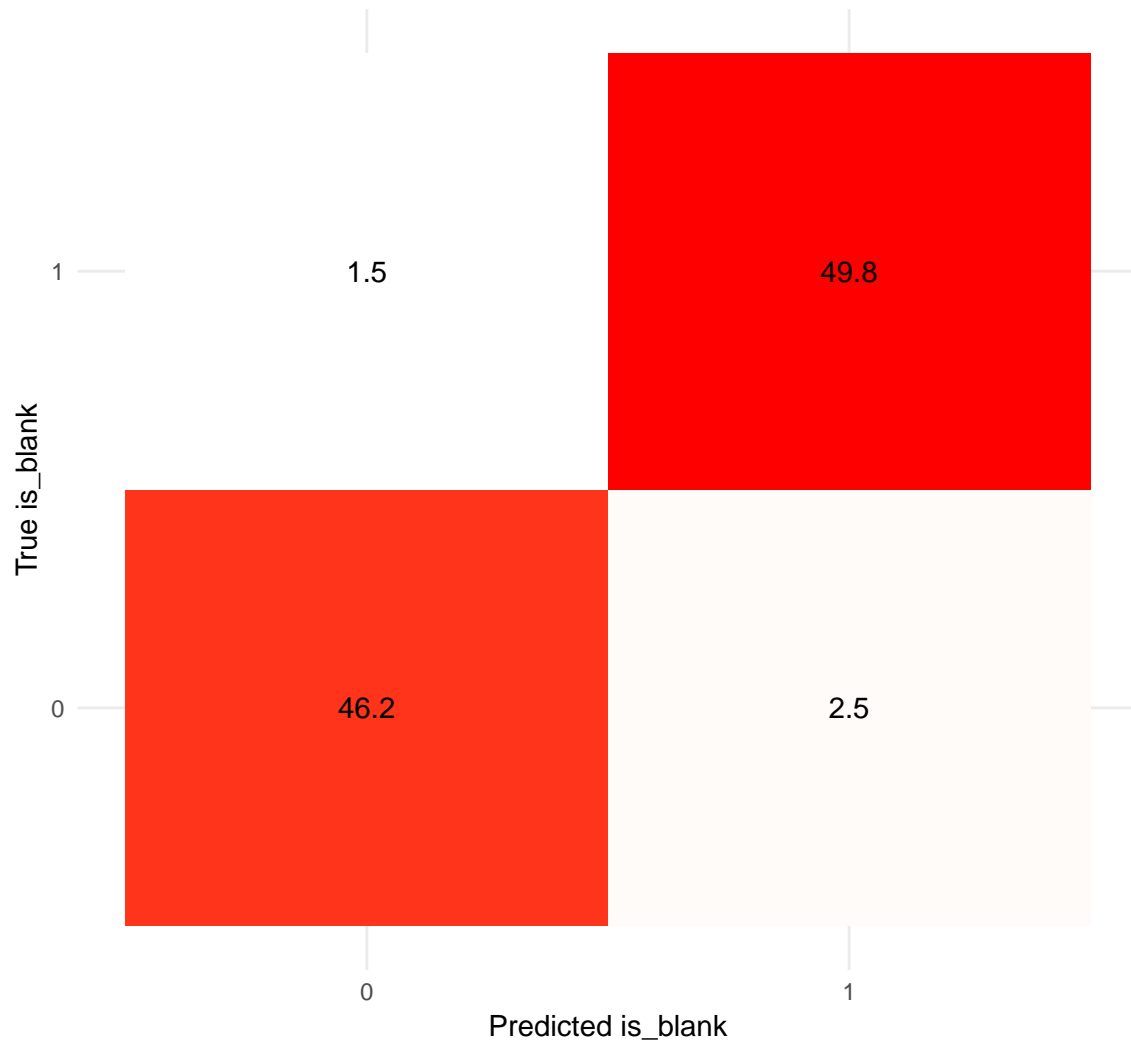
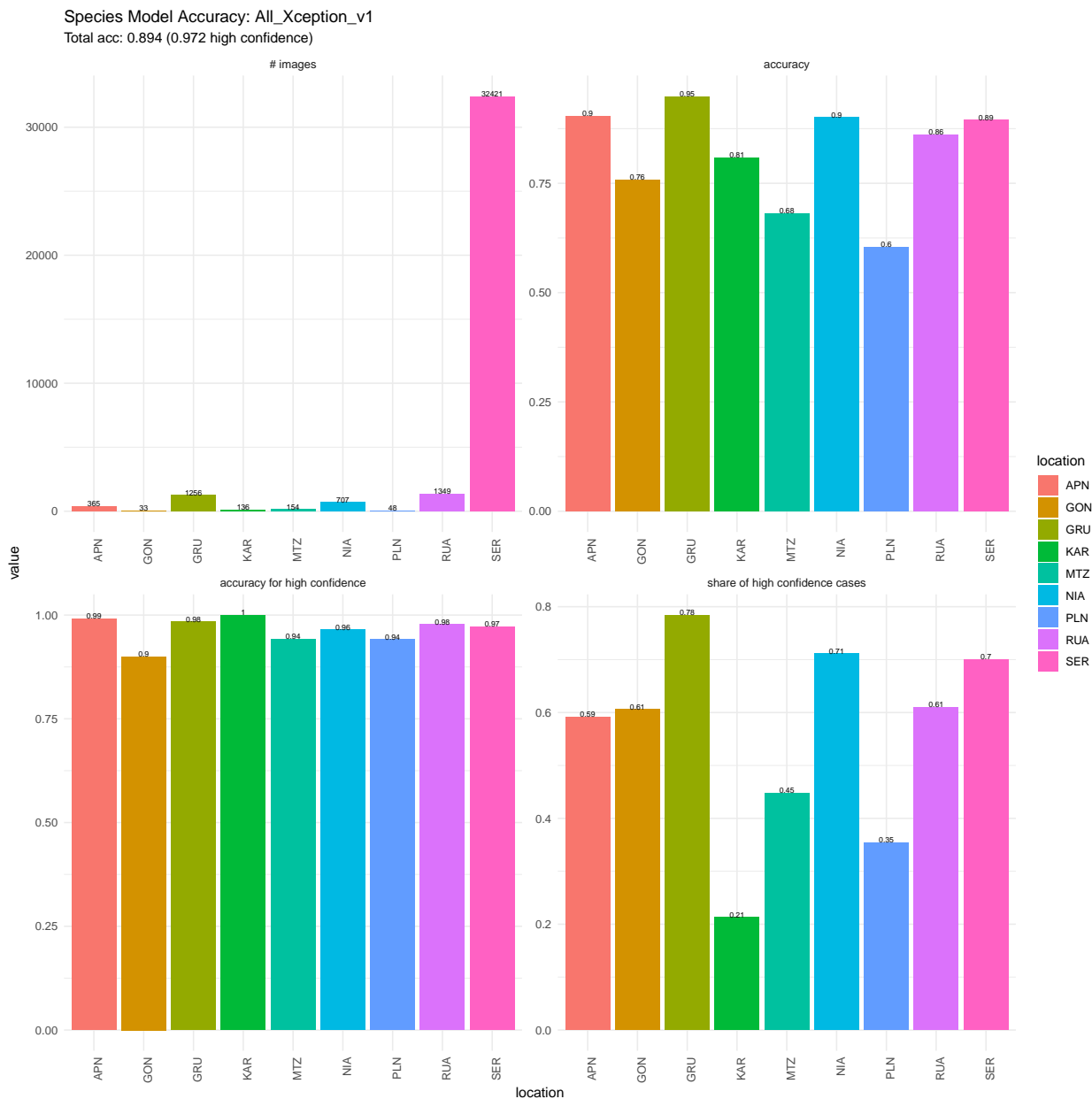## Evaluation Empty Model – All_SnapshotSafariModels

Blank – True vs Predicted – Rows (trues) sum to 100
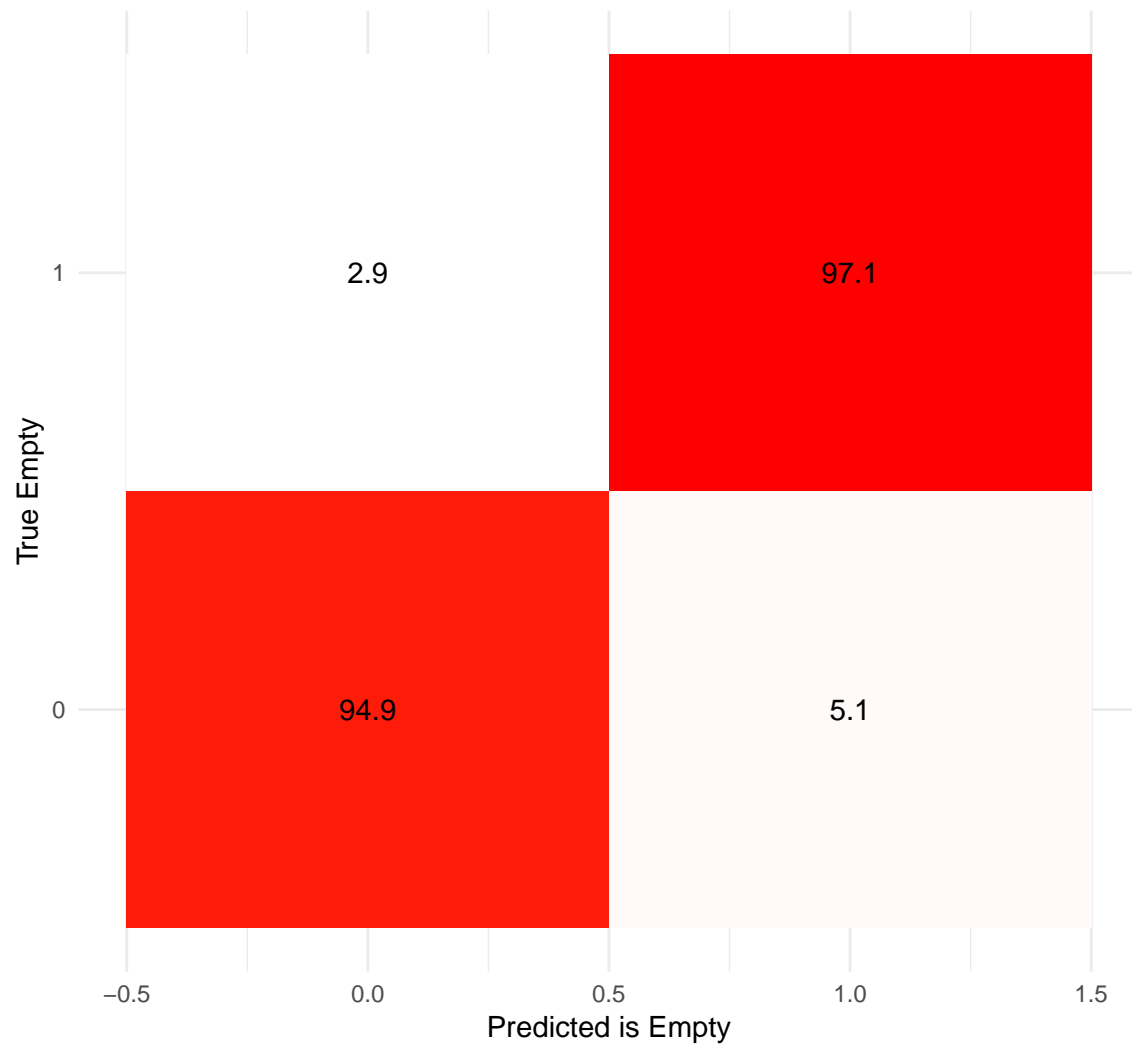
Species-Model Evaluations

The following figures show evaluations of the 'Species' model.

Per Location

Species Model Accuracy: All_Xception_v1
Total acc: 0.894 (0.972 high confidence)

Per Species

Evaluation Species Model – All_Xception_v1

species	# images	# images with high confidence	accuracy	accuracy for high confidence
zorilla	1	0	1	
zebra	6676	5748	0.93	0.96
wildebeest	10079	8079	0.94	0.98
wilddog	5	5	0.4	
wildcat	5	0	0	
waterbuck	32	12	0.62	1
warthog	826	423	0.86	0.98
vulture	5	0	0	0
tortoise	1	0		
topi	235	62	0.69	0.92
steenbok	8	0	0.25	
springbok	19	2	0.26	0
serval	74	20	0.66	1
secretarybird	85	47	0.82	0.94
sable	34	19	0.91	1
rodents	7	0	0	
rhinoceros	11	0	0.36	
rhebokgrey	1	0	0	
reptiles	20	4	0.5	1
reedbuck	236	106	0.77	0.97
porcupine	26	18	0.85	1
ostrich	60	19	0.63	0.95
monkeyvervet	46	11	0.7	0.91
monkeysamango	1	0	0	0
mongoose	43	8	0.47	0.88
lion	444	255	0.79	0.97
leopard	29	13	0.62	0.92
kudu	120	52	0.73	0.94
jackal	85	25	0.67	0.96
insectspider	47	1	0.32	0
impala	1684	712	0.9	0.98
hyenastriped	13	2	0	1
hyenaspotted	656	346	0.85	0.99
human	955	678	0.93	1
honeybadger	3	0	0.67	
hippopotamus	287	231	0.95	1
hartebeest	1032	507	0.83	0.97
hare	57	16	0.75	1
guineafowl	606	403	0.9	0.96
giraffe	889	677	0.9	0.98
genet	30	18	0.8	1
gemsbokoryx	31	6	0.87	1
gazellethomsons	5579	4299	0.96	0.99
gazellegrants	501	171	0.58	0.77
foxbateared	44	7	0.66	0.86
fire	30	17	0.8	0.94
elephant	1269	922	0.92	1
eland	351	128	0.75	0.88
duiker	48	5	0.58	0.8
domesticanimal	1	0	0	
dikdik	293	161	0.82	0.99
craneblue	1	0	0	
civet	17	8	0.71	1
cheetah	128	65	0.79	0.95
cattle	11	2	0.09	0
caracal	4	0	0.75	
bustardludwigs	1	0	0	
bustardkori	59	8	0.47	1
bushpig	5	0	0.4	
bushbuck	28	8	0.43	0.88
buffalo	1209	682	0.84	0.96
birdother	636	147	0.59	0.42
bat	1	0	0	
baboon	372	195	0.83	0.97
aardwolf	22	0	0.45	
aardvark	45	29	0.8	0.97

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Counts Evaluations

The following figures show evaluations of predicted counts.

Overall View

Evaluation Species Model – All_Xception_v1
Count Accuracies
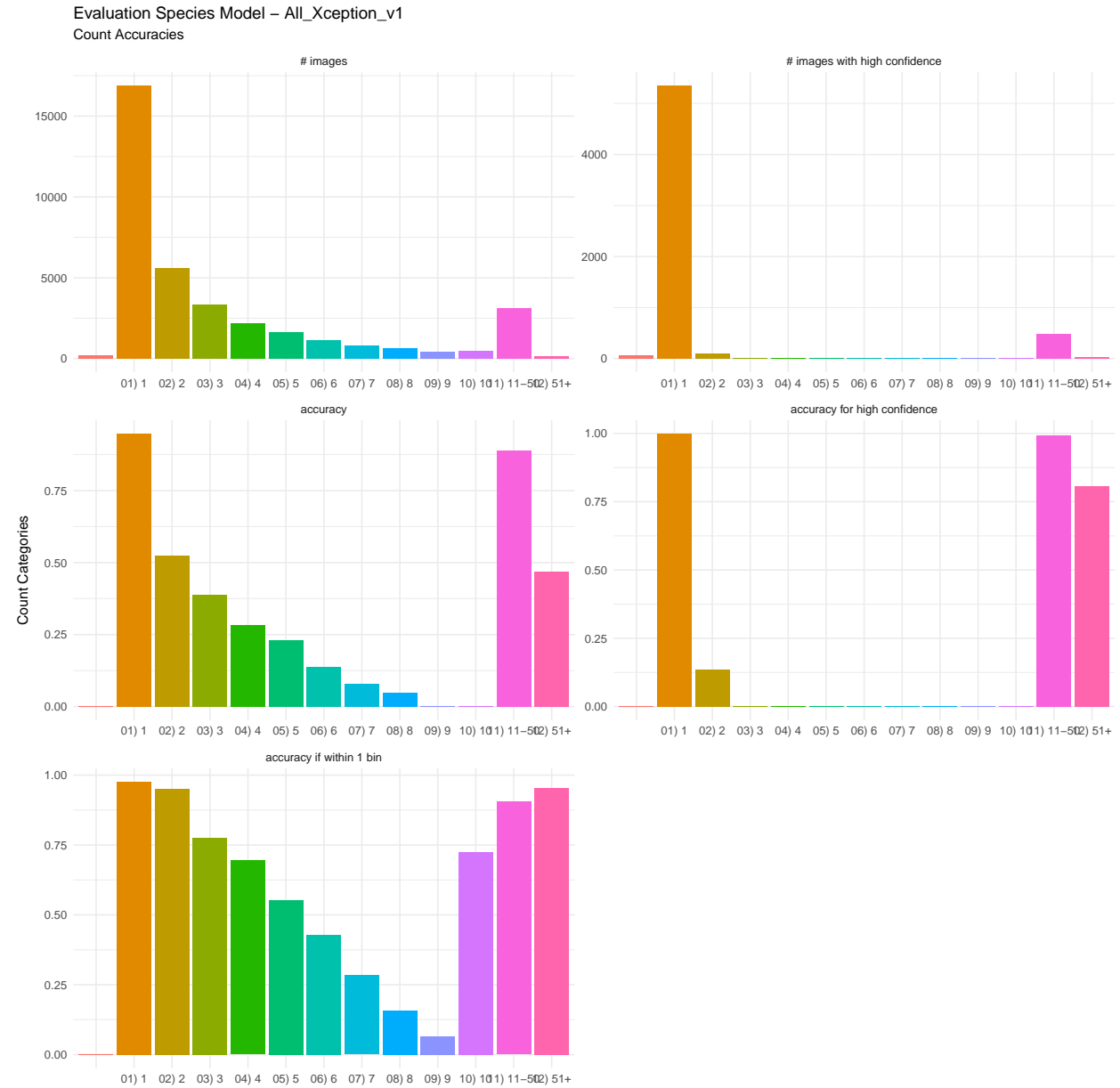
Confusion Matrix - Absolute Values

Evaluation Species Model – All_Xception_v1
count – True vs Predicted

True count \ Predicted count	01) 1	02) 2	03) 3	04) 4	05) 5	06) 6	07) 7	08) 8	09) 9	10) 10	11) 11–50	12) 51+
12) 51+	0	0	0								0.2	0.2
11) 11–50	0.3	0.1	0.1	0.1	0.1	0.1	0	0	0	0	7.6	0.1
10) 10	0.1	0	0	0	0.1	0	0	0	0		0.9	
09) 9	0.1	0	0	0	0	0.1	0	0.1	0	0	0.7	
08) 8	0.1	0	0.1	0.1	0.2	0.2	0.2	0.1	0	0	0.8	
07) 7	0.1	0.1	0.1	0.1	0.4	0.4	0.2	0.1	0	0	0.8	
06) 6	0.2	0.1	0.3	0.4	0.8	0.4	0.1	0	0		0.7	
05) 5	0.5	0.3	0.6	1.1	1	0.3	0.1	0			0.5	
04) 4	0.7	0.6	1.8	1.7	0.7	0.1	0	0			0.4	0
03) 3	1.4	2.7	3.6	0.9	0.2	0	0	0			0.4	
02) 2	5.2	8.1	1.4	0.2	0.1	0	0	0			0.4	0
01) 1	44	1.4	0.3	0.1	0.1	0	0	0	0		0.5	0

Confusion Matrix - Relative Values

Evaluation Species Model – All_Xception_v1
### Count – True vs Predicted – Rows (trues) sum to 100

True Counts / Predicted Counts

True \ Predicted	01) 1	02) 2	03) 3	04) 4	05) 5	06) 6	07) 7	08) 8	09) 9	10) 10	11) 11–50	12) 51+
12) 51+	3.4	0.7	0.7								48.3	47
11) 11–50	3.2	1	0.9	0.8	1.5	0.9	0.5	0.5	0.1	0	89	1.5
10) 10	6.3	1.3	1.3	3.7	5	2.6	3.5	3.7	0.7		72	
09) 9	6.1	1	2.3	4.6	4.6	7.9	4.3	6.1	0.3	0.3	62.7	
08) 8	5.7	2.5	4.1	4.7	9.2	12	9.8	4.9	0.9	0.3	45.8	
07) 7	5.2	2.9	4.3	5.5	18.7	17.9	7.7	2.7	0.2	0.1	34.7	
06) 6	6.9	3.9	9.5	13.9	24.4	13.7	4.6	1.3	0.1		21.7	
05) 5	10.3	6.6	13.9	25.3	23.1	7	1.4	0.2			12.2	
04) 4	11.7	10.6	29.9	28.2	11.3	1.2	0.4	0.2			6.3	0
03) 3	15.3	28.9	38.9	9.8	2.4	0.5	0.1	0			4	
02) 2	33.6	52.4	9.1	1.1	0.7	0.1	0.1	0			2.8	0
01) 1	94.7	2.9	0.6	0.3	0.2	0.1	0	0	0		1.2	0
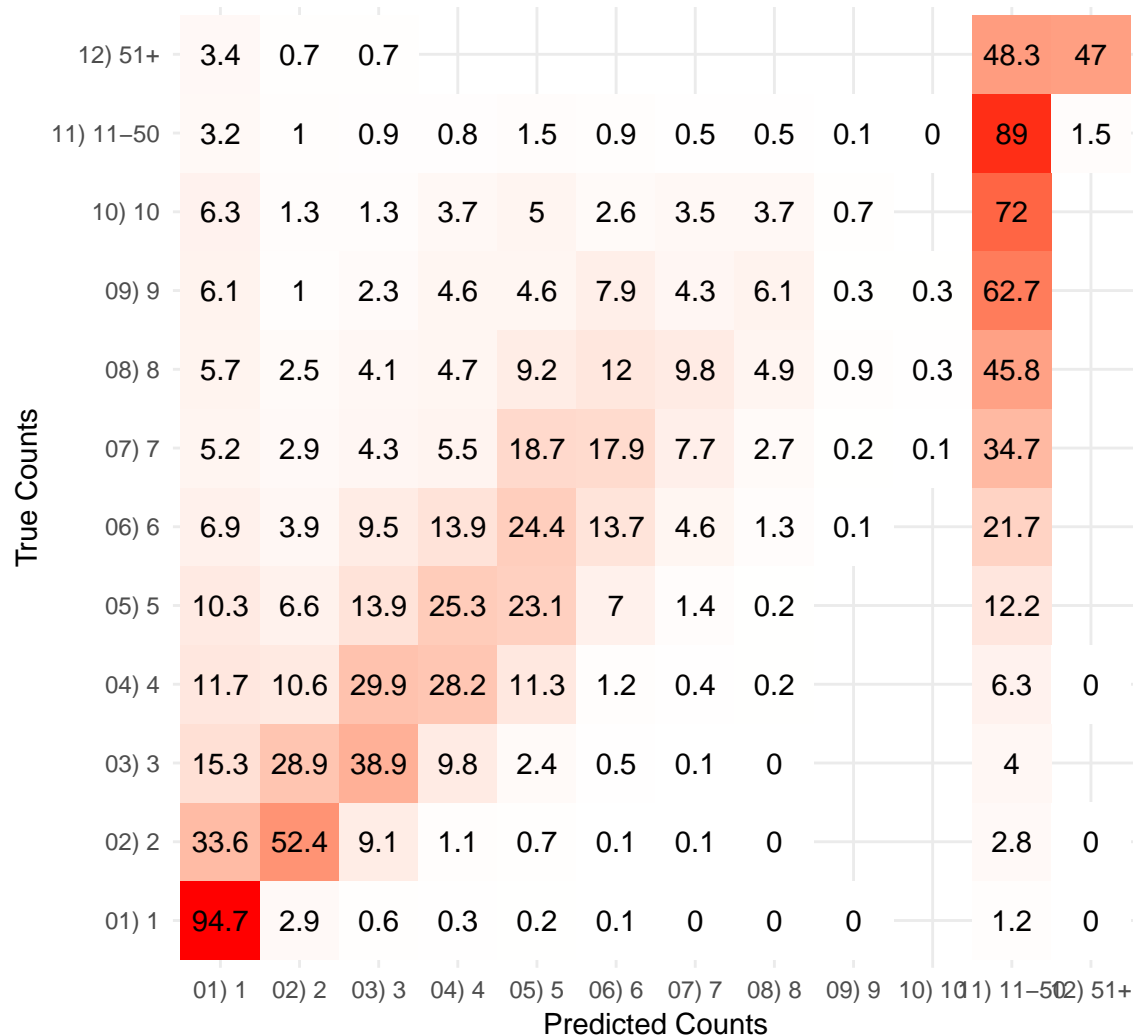
Evaluation Species Model – All_Xception_v1
standing – True vs Predicted
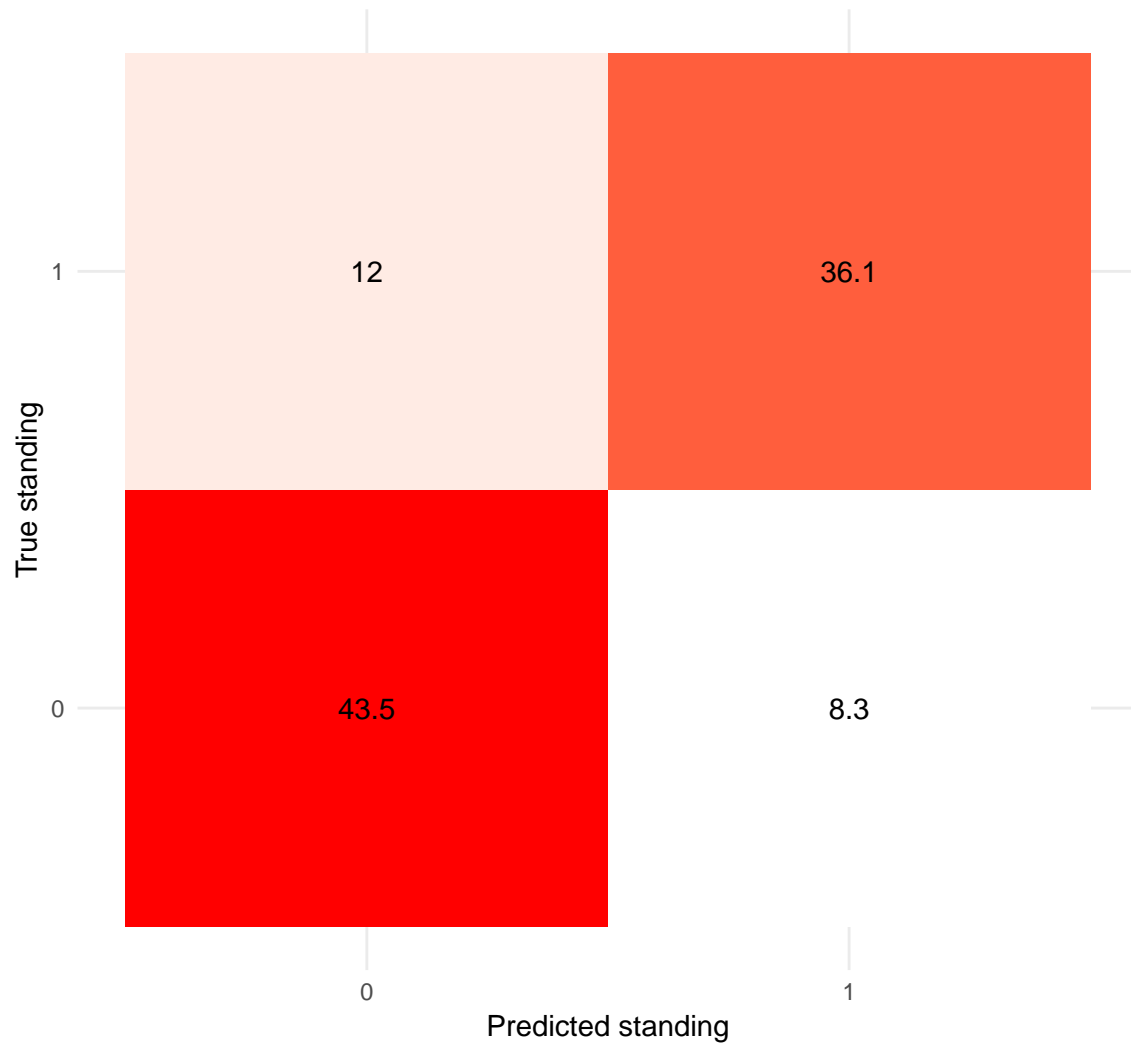
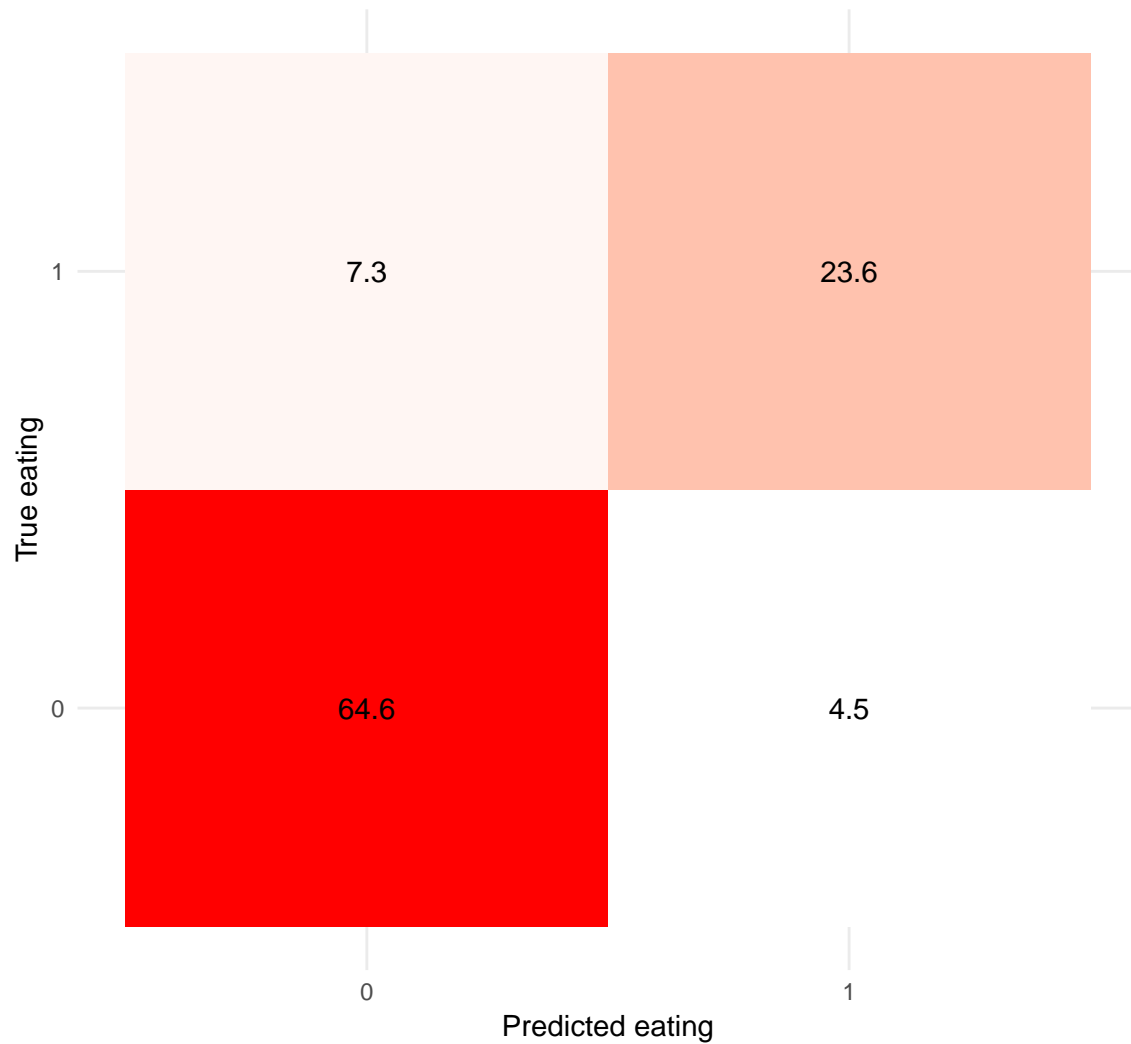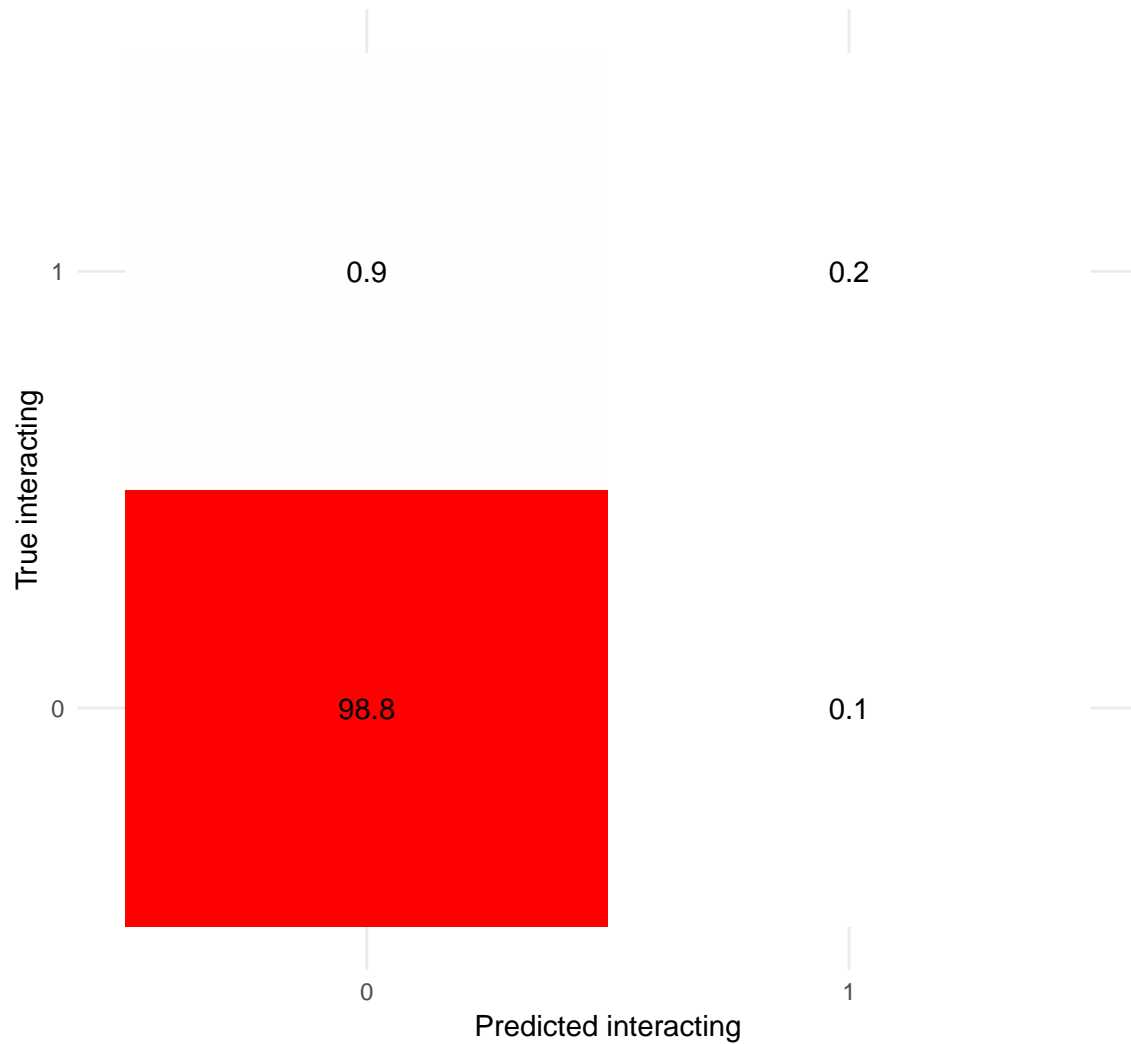## Evaluation Species Model – All_Xception_v1

moving – True vs Predicted
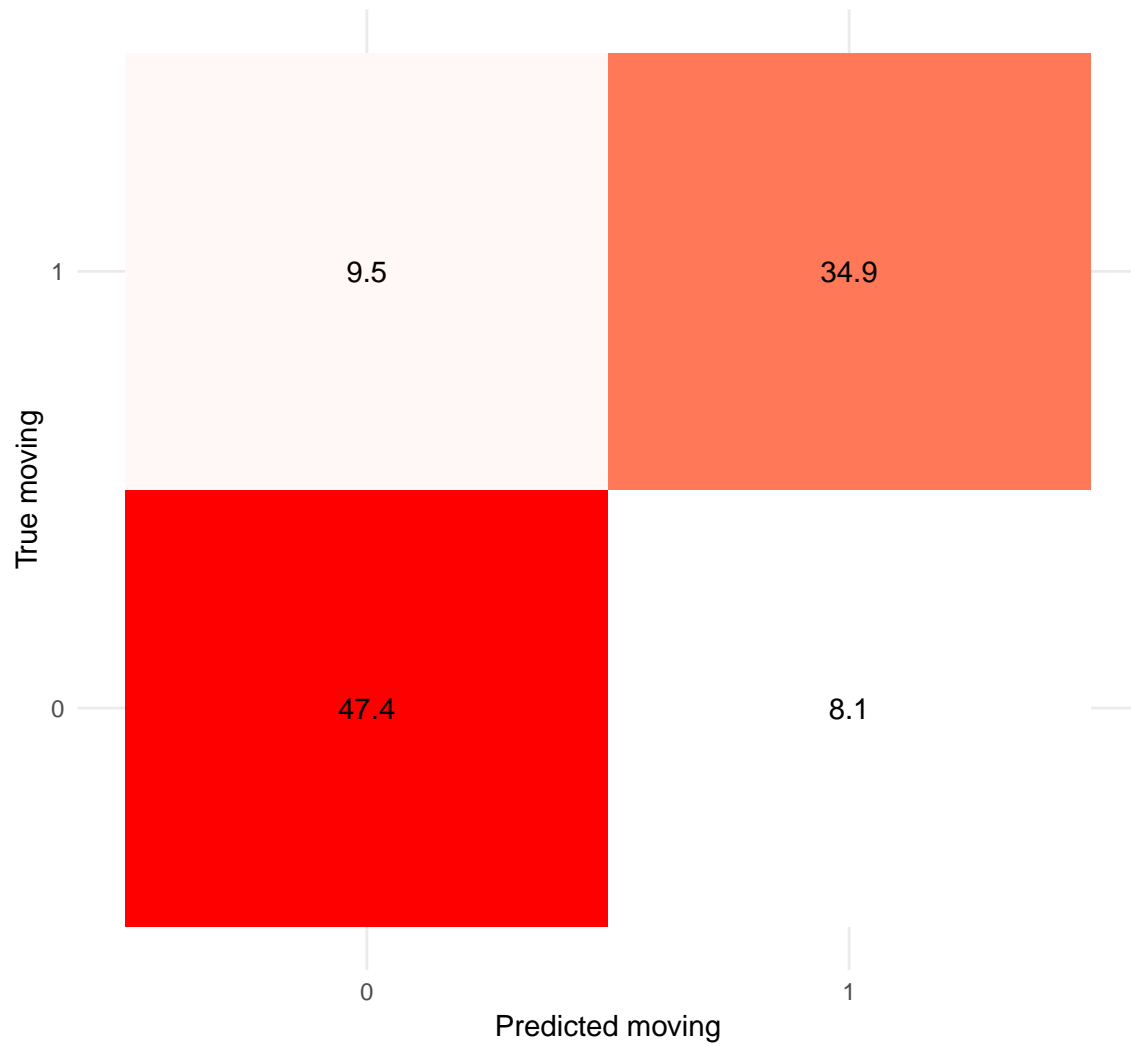
Evaluation Species Model – All_Xception_v1
eating – True vs Predicted

Evaluation Species Model – All_Xception_v1
interacting – True vs Predicted

Evaluation Species Model – All_Xception_v1
young_present – True vs Predicted