

# 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).

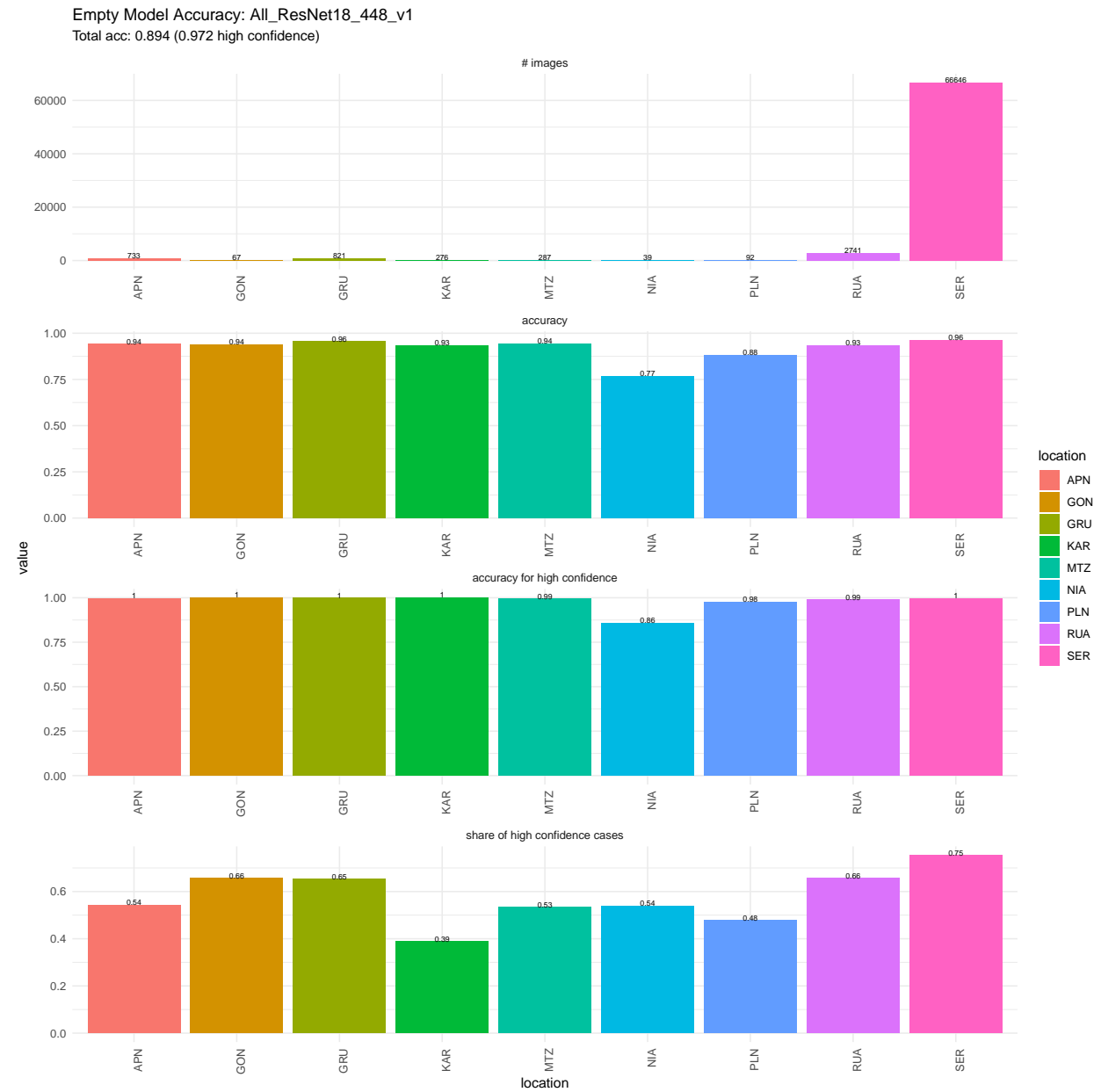
The most important figures are:

- 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: 89.39 %
- Species model overall accuracy (high confidence): 97.2 %
- 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.

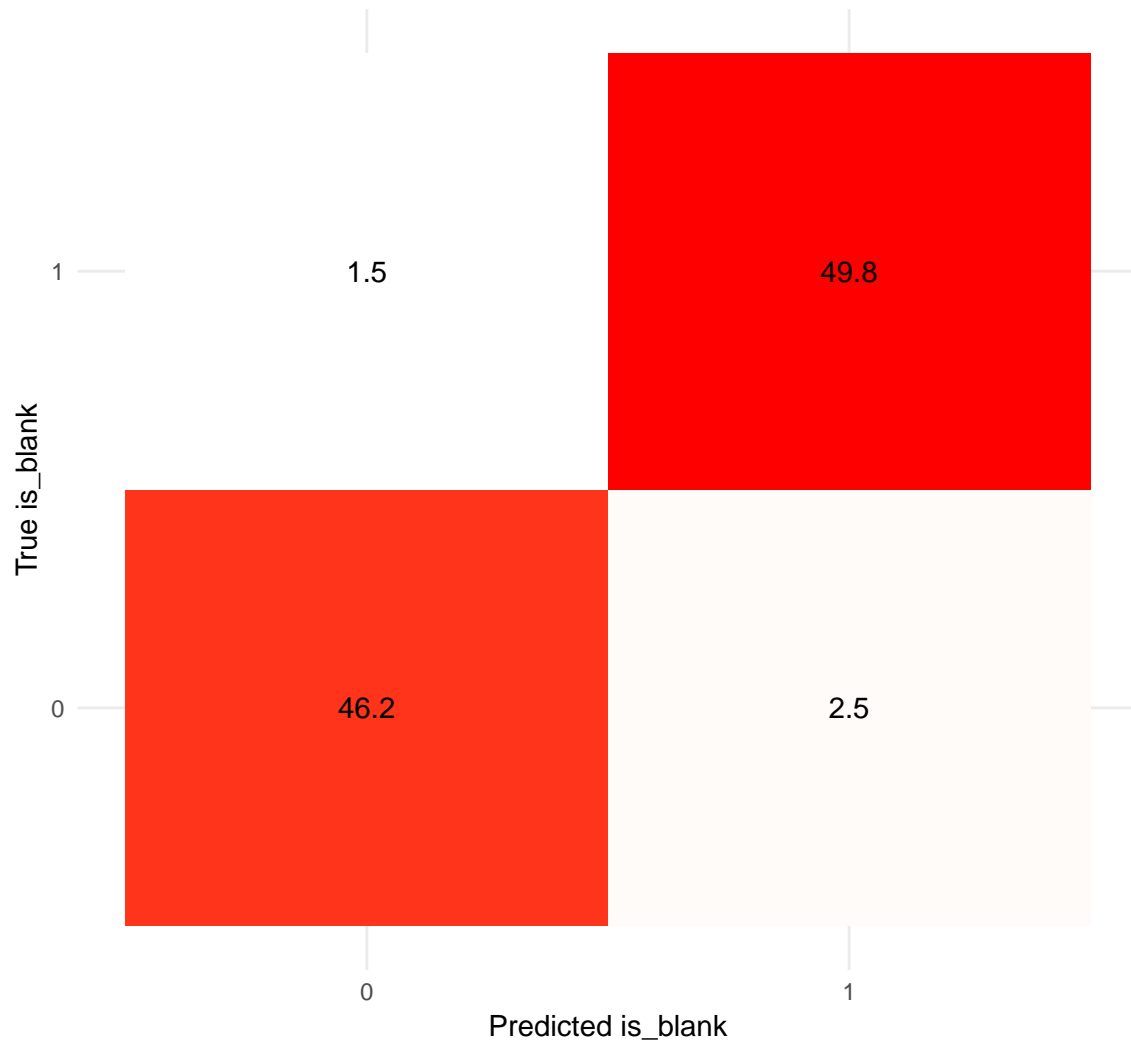
### Evaluation per Location / Park



## Confusion Matrix - Overall View

Evaluation Empty Model – All\_ResNet18\_448\_v1

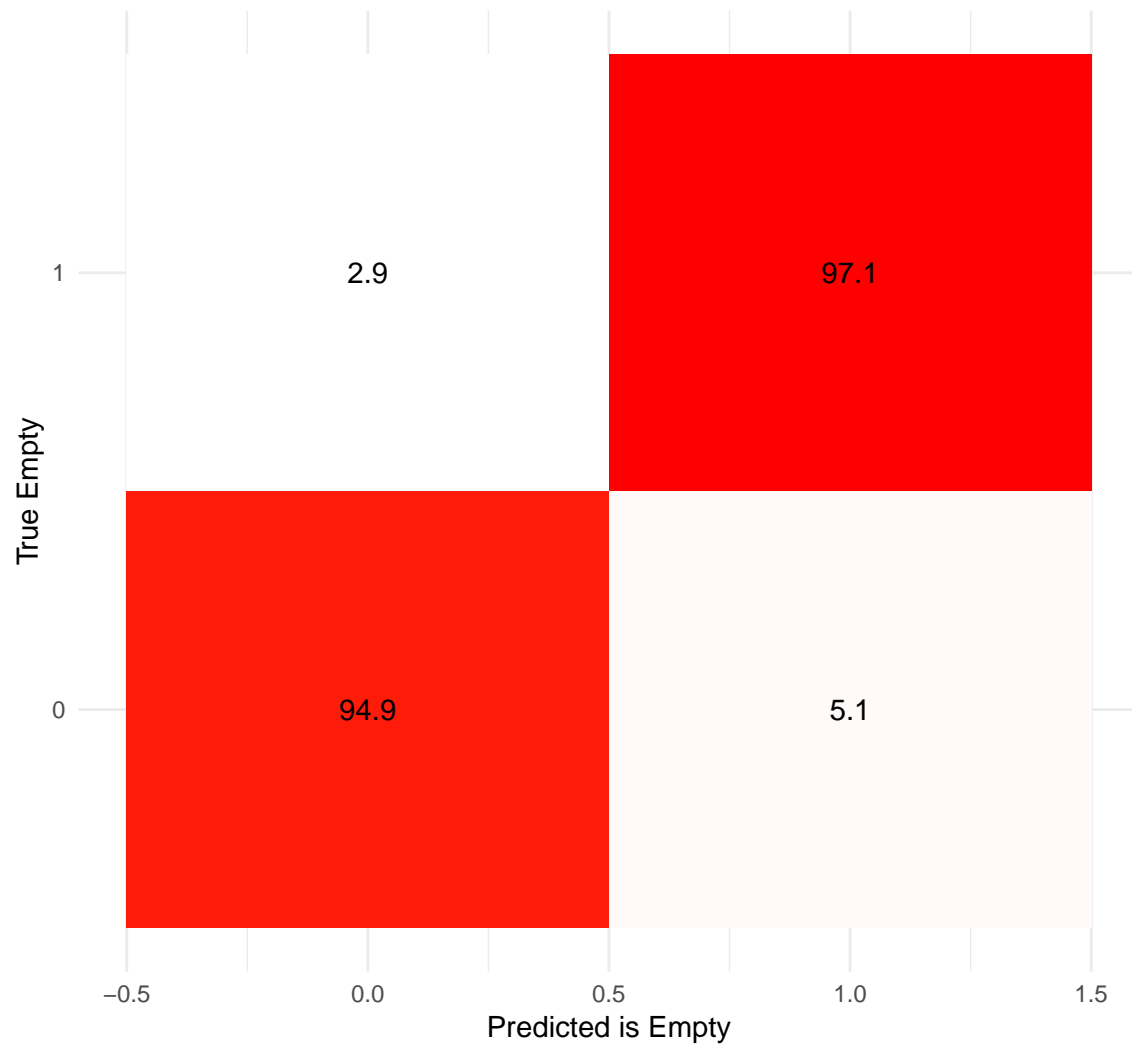
is\_blank – True vs Predicted



## Confusion Matrix - Per Label(row) View

Evaluation Empty Model – All\_SnapshotSafariModels

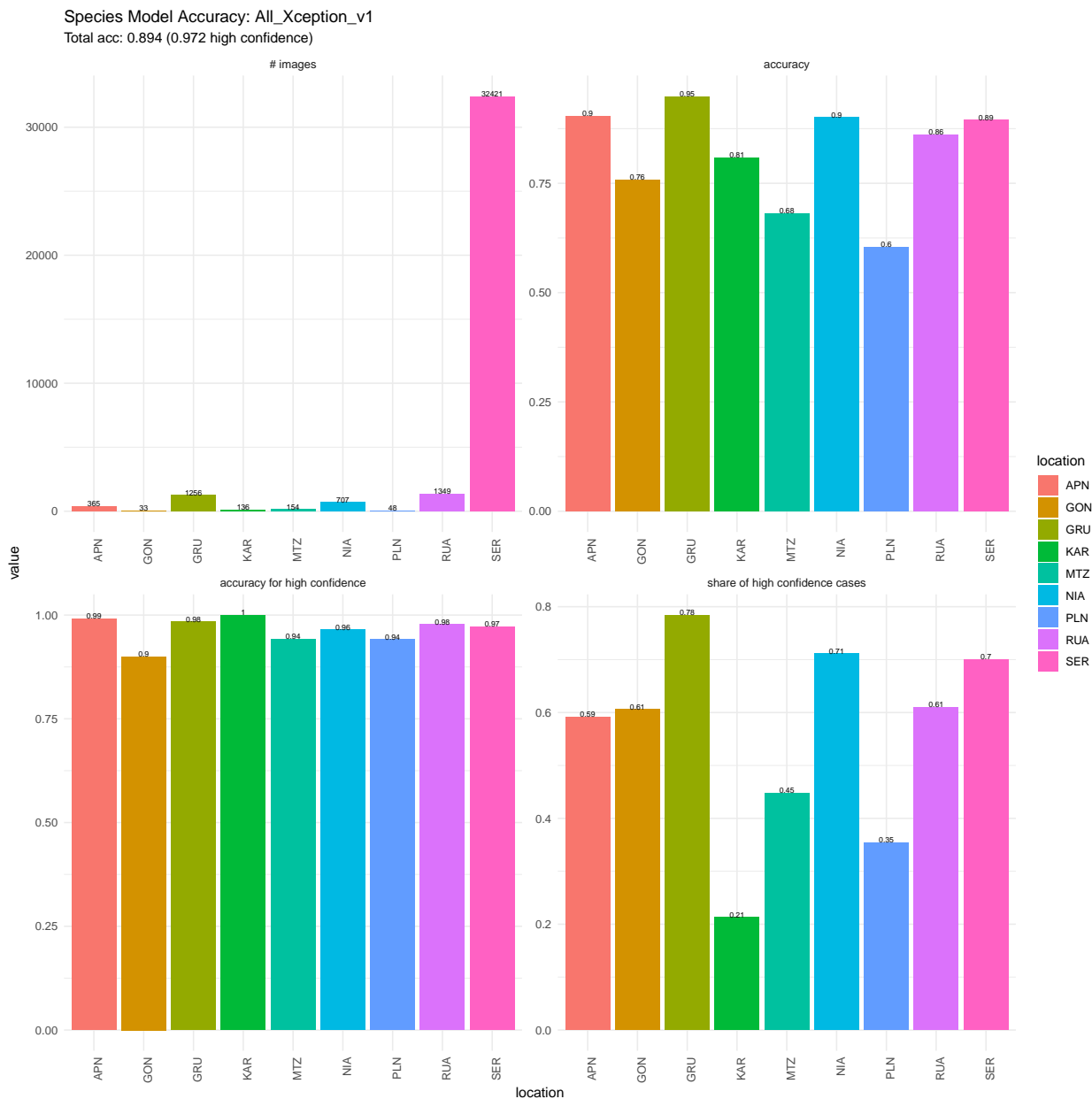
Blank – True vs Predicted – Rows (trues) sum to 100



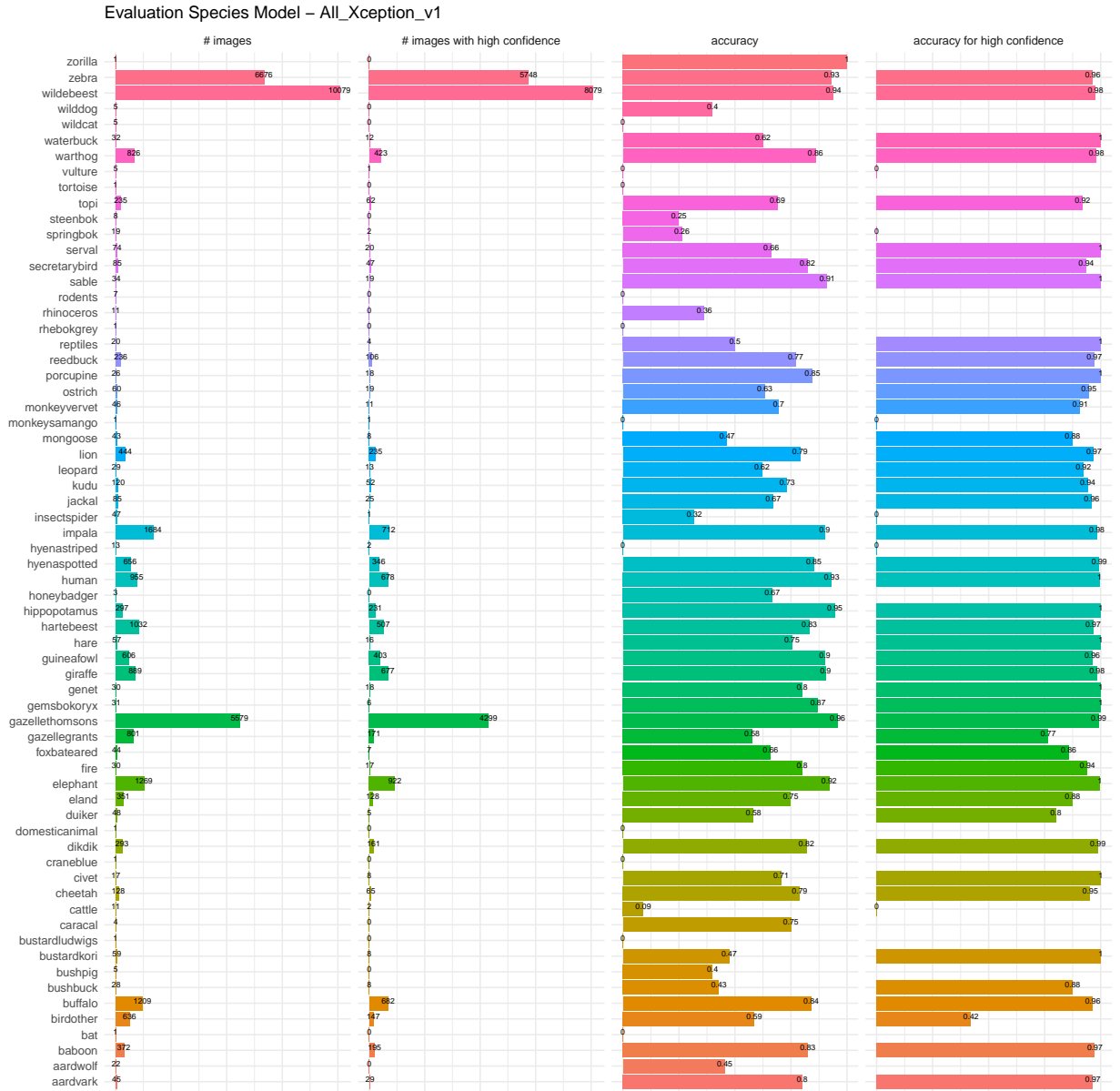
# Species-Model Evaluations

The following figures show evaluations of the ‘Species’ model.

## Per Location



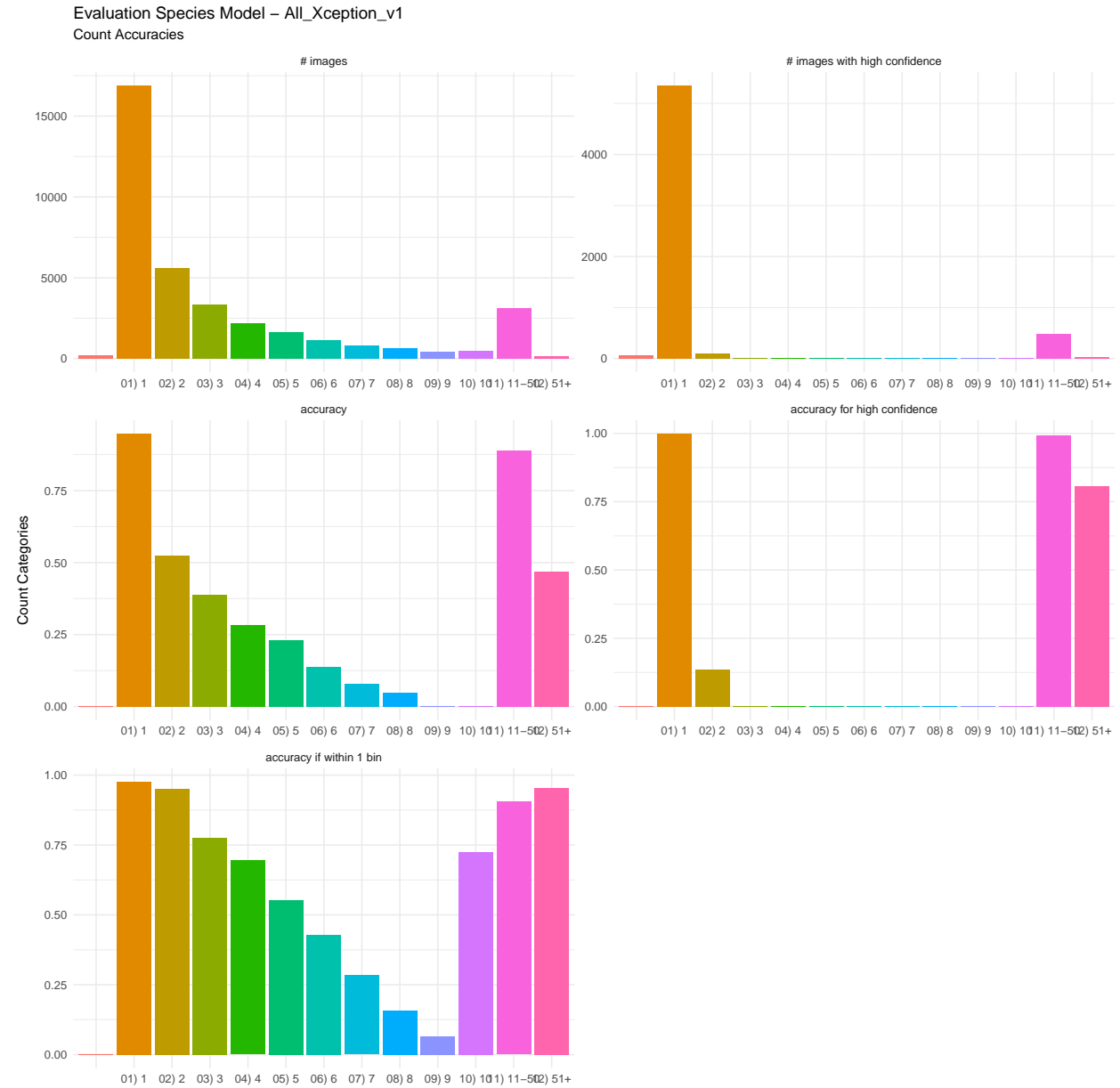
## Per Species



## Counts Evaluations

The following figures show evaluations of predicted counts.

### Overall View



Confusion Matrix - Absolute Values

Evaluation Species Model – All\_Xception\_v1  
count – True vs Predicted

True count	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
		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+
		Predicted count											



# Confusion Matrix - Relative Values

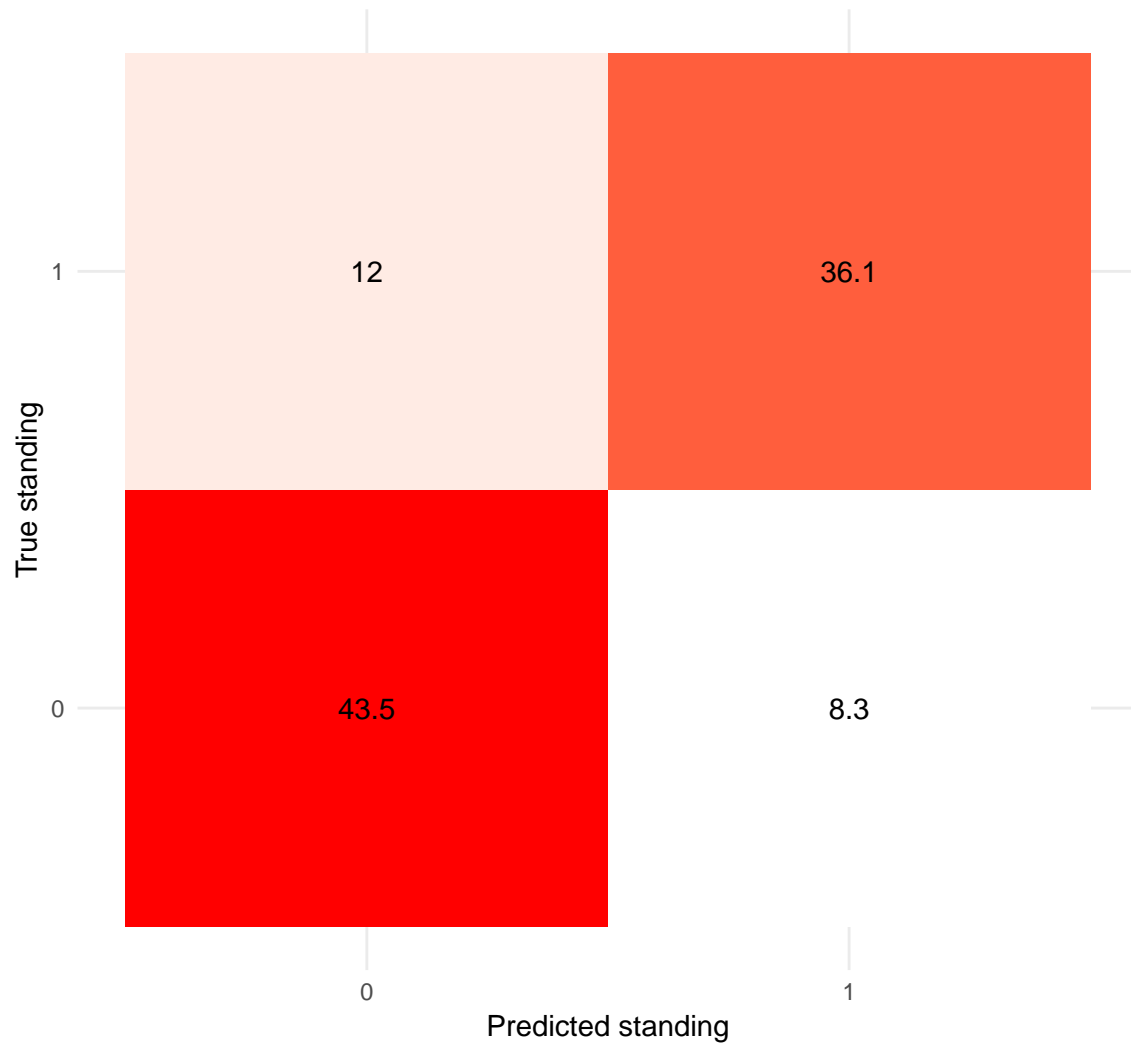
## Evaluation Species Model – All\_Xception\_v1

Count – True vs Predicted – Rows (trues) sum to 100

True Counts	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
		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+
		Predicted Counts											

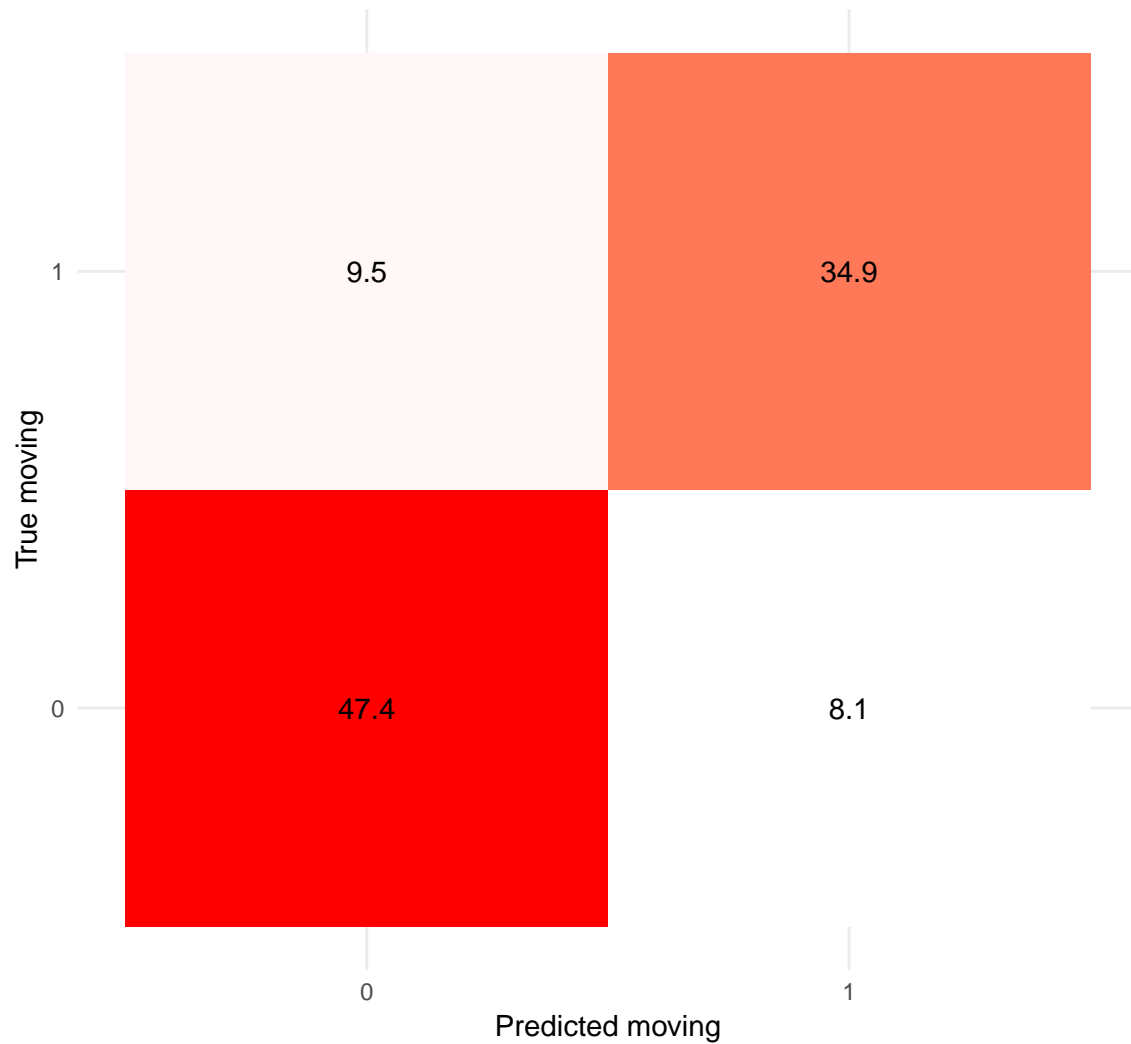
## Behavior Evaluation - Standing

Evaluation Species Model – All\_Xception\_v1  
standing – True vs Predicted



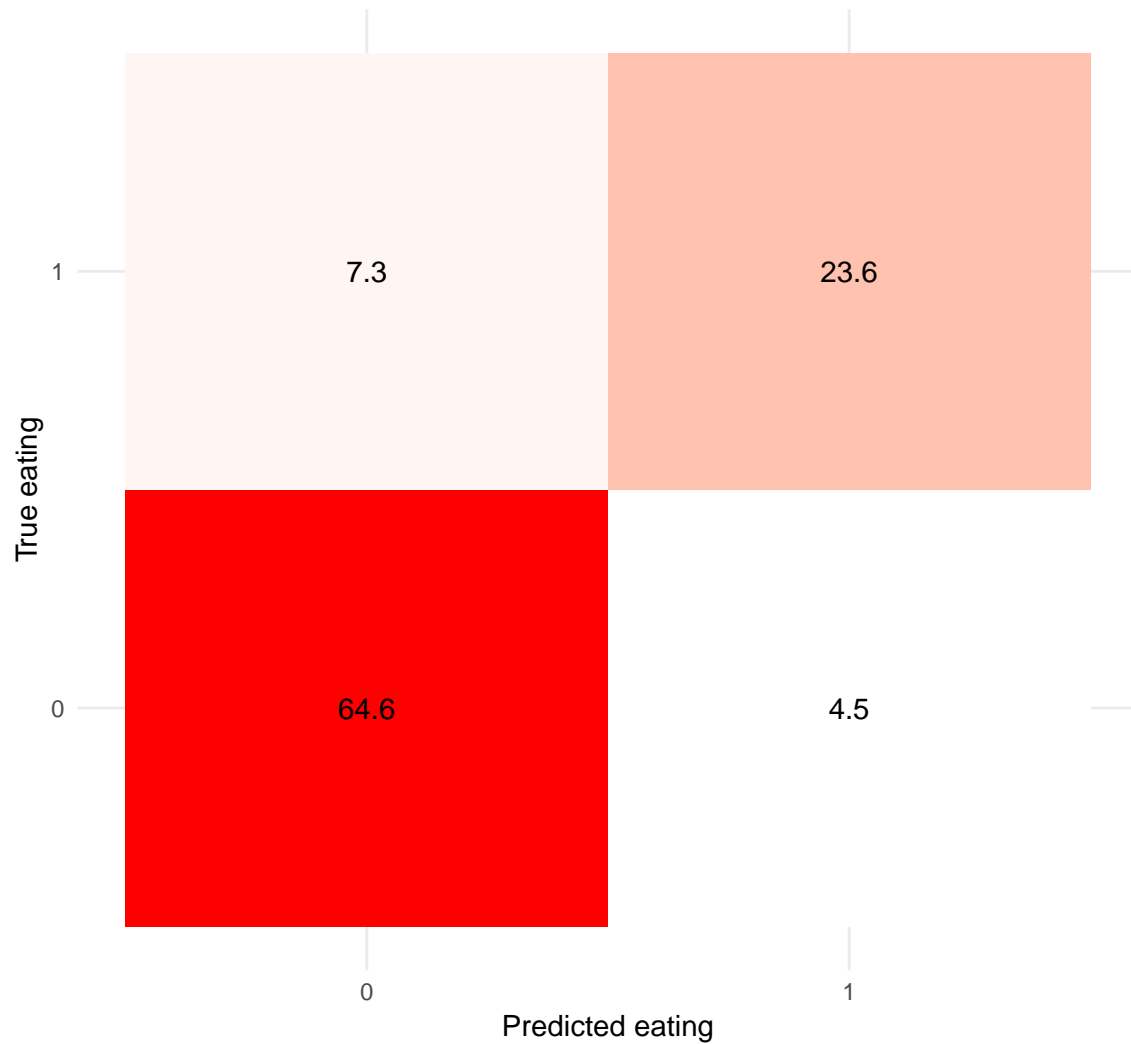
## Behavior Evaluation - Moving

Evaluation Species Model – All\_Xception\_v1  
moving – True vs Predicted



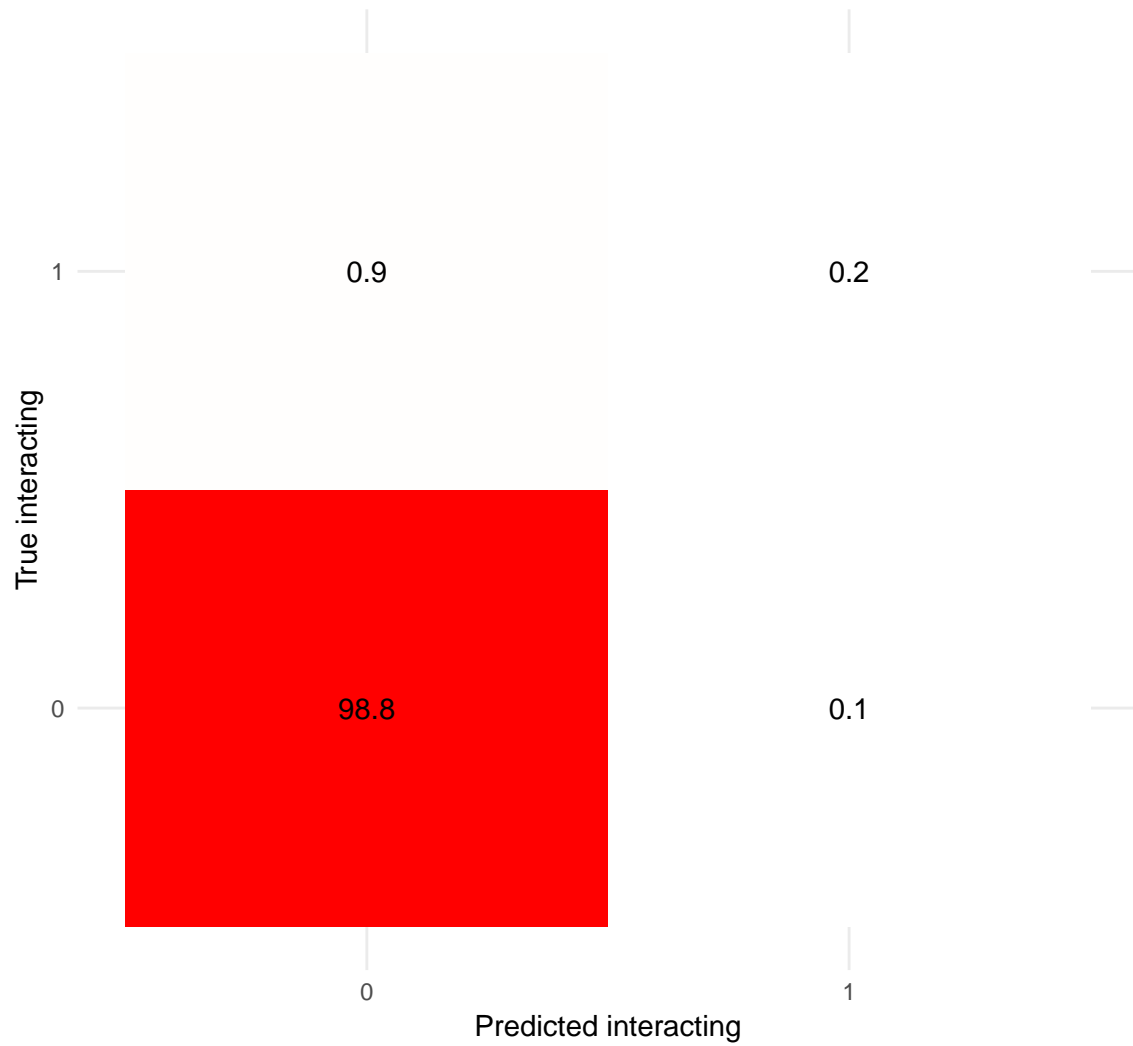
## Behavior Evaluation - Eating

Evaluation Species Model – All\_Xception\_v1  
eating – True vs Predicted



## Behavior Evaluation - Interacting

Evaluation Species Model – All\_Xception\_v1  
interacting – True vs Predicted



## Young Present

### Evaluation Species Model – All\_Xception\_v1

young\_present – True vs Predicted

