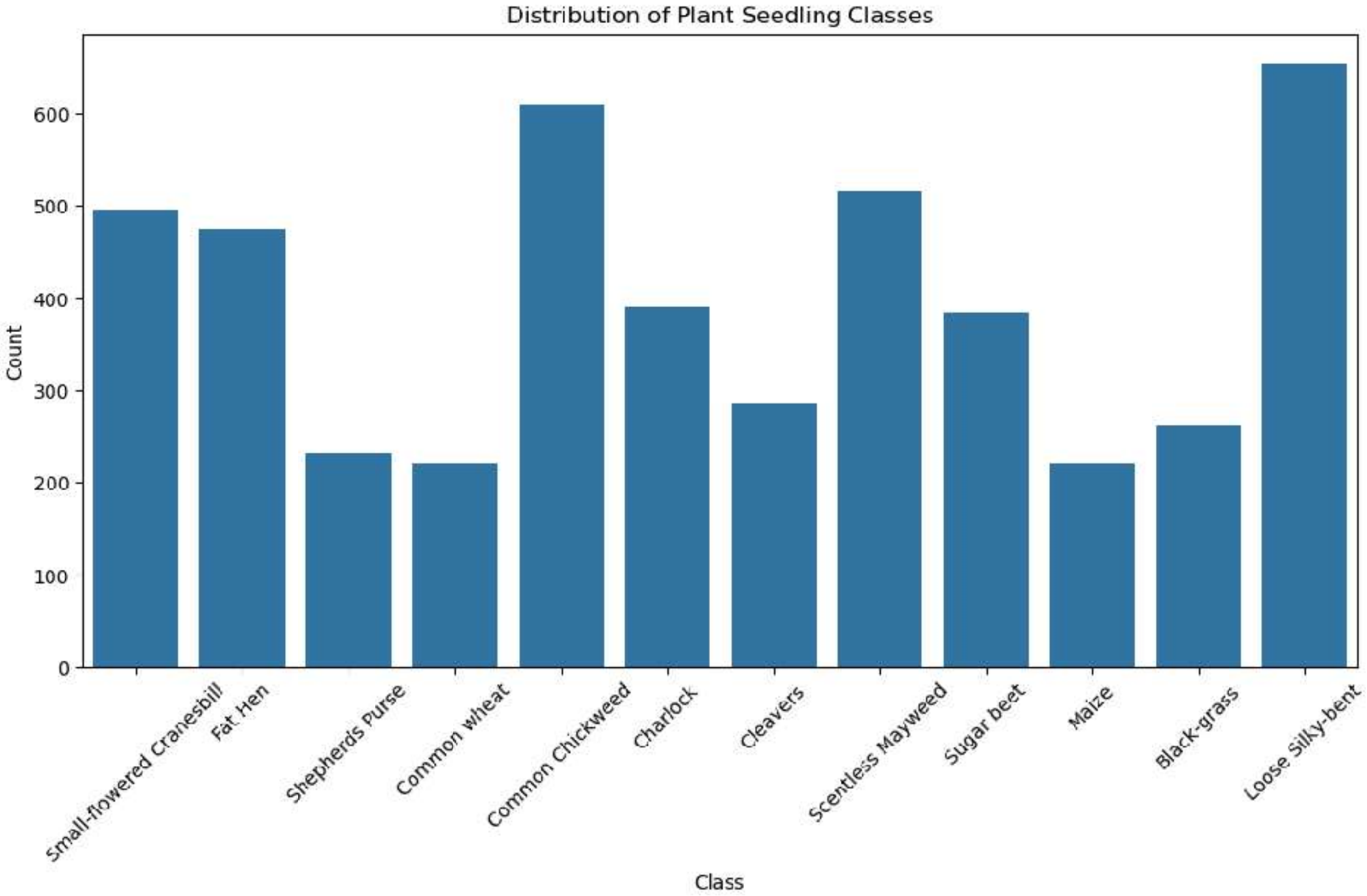
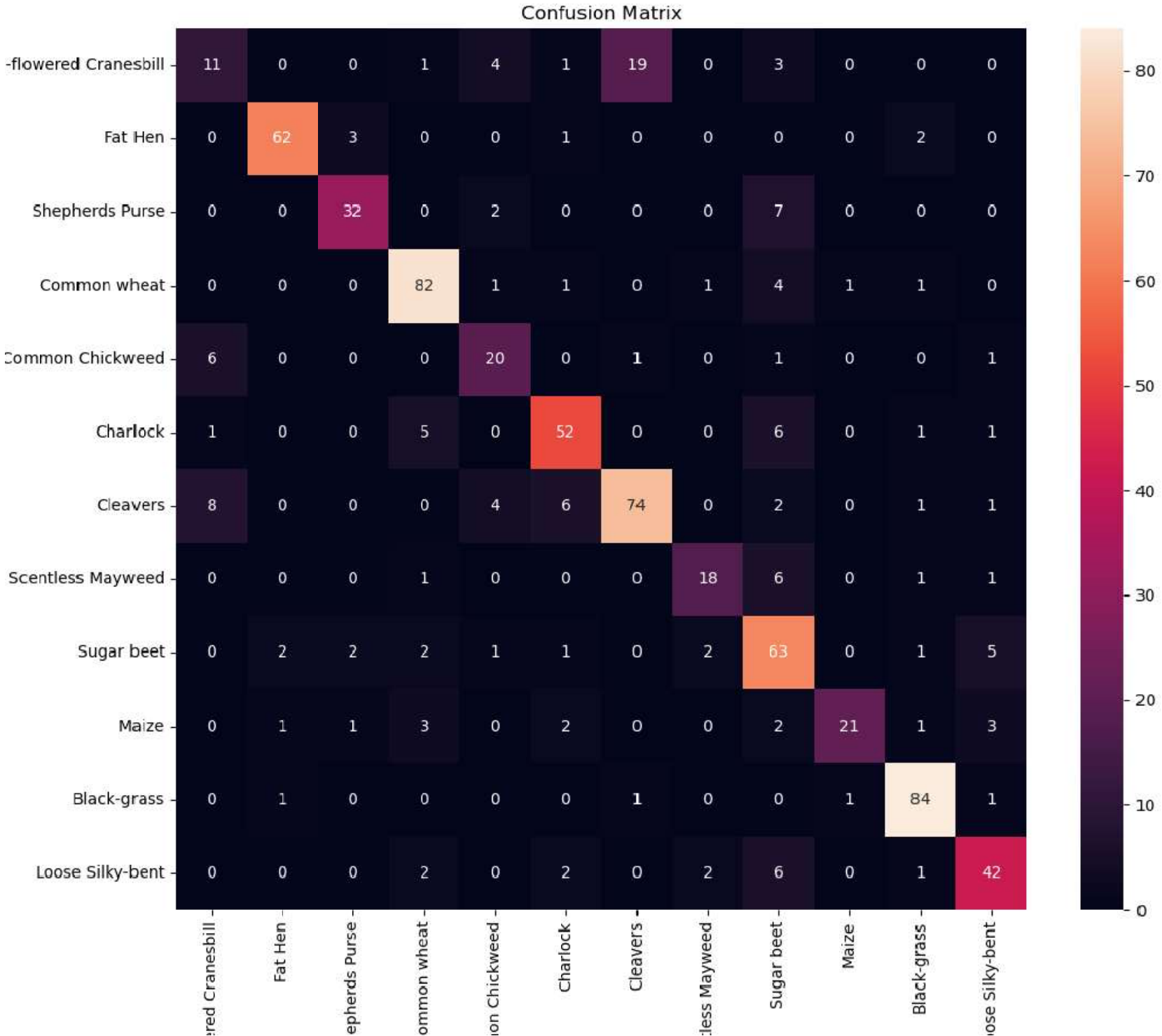
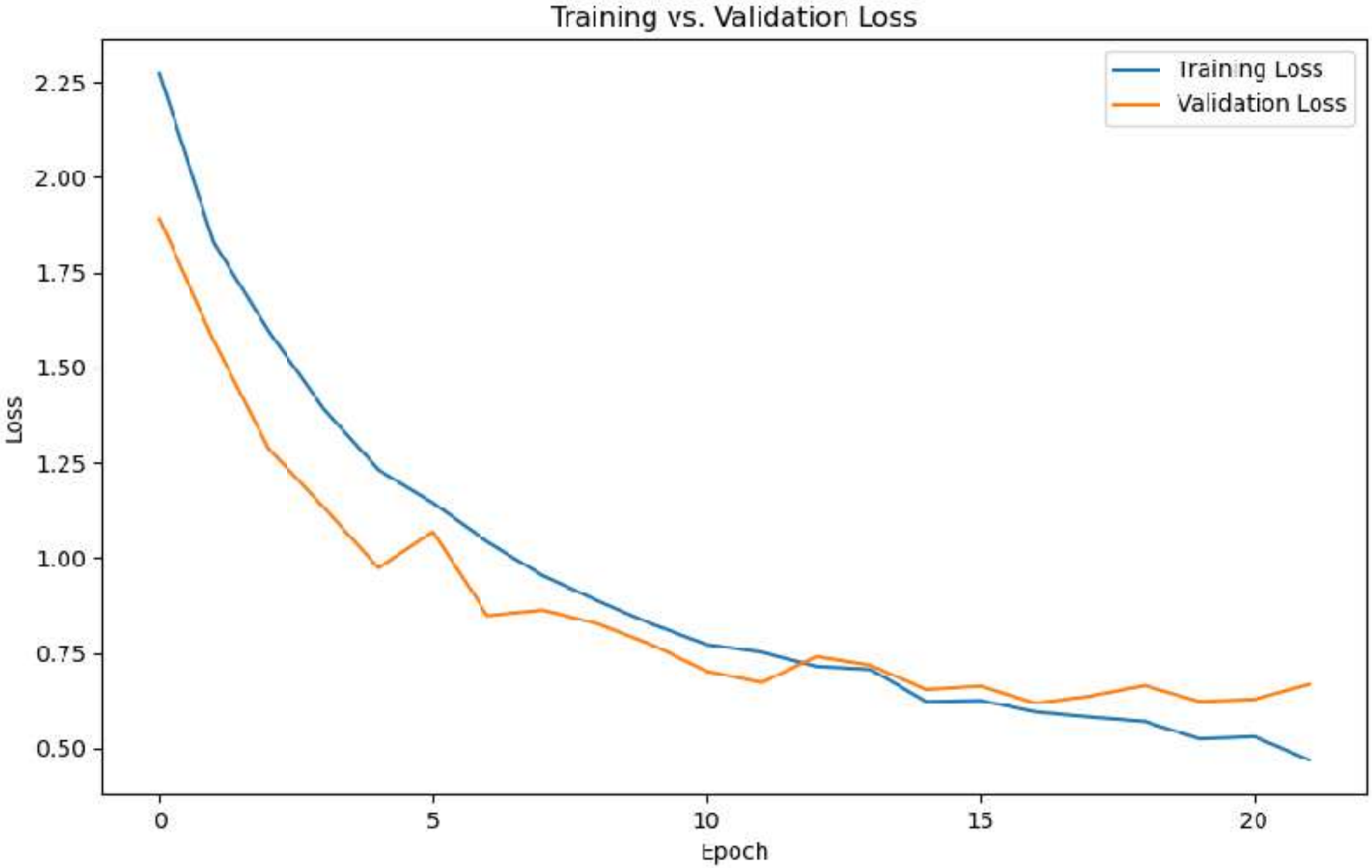

Distribution of Plant Seedling Classes
Count
0
100
200
300
400
500
600
Small-flowered Cranesbill
Fat Hen
Shepherds Purse
Common wheat
Common Chickweed
Charlock
Cleavers
Scentless Mayweed
Sugar beet
Maize
Black-grass
Loose Silky-bent
Class

	precision	recall	f1-score	support
Small-flowered Cranesbill	0.42	0.28	0.34	39
Fat Hen	0.94	0.91	0.93	68
Shepherds Purse	0.84	0.78	0.81	41
Common wheat	0.85	0.90	0.88	91
Common Chickweed	0.62	0.69	0.66	29
Charlock	0.79	0.79	0.79	66
Cleavers	0.78	0.77	0.77	96
Scentless Mayweed	0.78	0.67	0.72	27
Sugar beet	0.63	0.80	0.70	79
Maize	0.91	0.62	0.74	34
Black-grass	0.90	0.95	0.93	88
Loose Silky-bent	0.76	0.76	0.76	55
accuracy			0.79	713
macro avg	0.77	0.74	0.75	713
weighted avg	0.79	0.79	0.78	713


Confusion Matrix
-flowered Cranesbill
Fat Hen
Shepherds Purse
Common wheat
Common Chickweed
Charlock
Cleavers
Scentless Mayweed
Sugar beet
Maize
Black-grass
Loose Silky-bent
11 0 0 1 4 1 19 0 3 0 0 0
0 62 3 0 0 1 0 0 0 0 2 0
0 0 32 0 2 0 0 0 7 0 0 0
0 0 0 82 1 1 0 1 4 1 1 0
6 0 0 0 20 0 1 0 1 0 0 1
1 0 0 5 0 52 0 0 6 0 1 1
8 0 0 0 4 6 74 0 2 0 1 1
0 0 0 1 0 0 0 18 6 0 1 1
0 2 2 2 1 1 0 2 63 0 1 5
0 1 1 3 0 2 0 0 2 21 1 3
0 1 0 0 0 0 1 0 0 1 84 1
0 0 0 2 0 2 0 2 6 0 1 42
80
70
60
50
40
30
20
10
0


Training vs. Validation Loss
Training Loss
Validation Loss
Loss
Epoch
2.25
2.00
1.75
1.50
1.25
1.00
0.75
0.50
0
5
10
15
20

Model: "sequential"

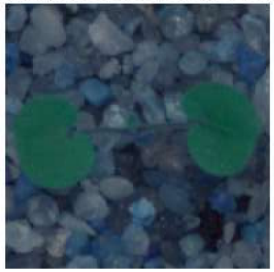
Layer (type)	Output Shape	Param #
conv2d (Conv2D)	(None, 62, 62, 32)	896
max_pooling2d (MaxPooling2D)	(None, 31, 31, 32)	0
conv2d_1 (Conv2D)	(None, 29, 29, 64)	18,496
max_pooling2d_1 (MaxPooling2D)	(None, 14, 14, 64)	0
conv2d_2 (Conv2D)	(None, 12, 12, 128)	73,856
max_pooling2d_2 (MaxPooling2D)	(None, 6, 6, 128)	0
flatten (Flatten)	(None, 4608)	0
dense (Dense)	(None, 128)	589,952
dropout (Dropout)	(None, 128)	0
dense_1 (Dense)	(None, 12)	1,548

Total params: 684,748 (2.61 MB)

Trainable params: 684,748 (2.61 MB)

Non-trainable params: 0 (0.00 B)

Small-flowered Cranesbill



Fat Hen

Shepherds Purse

Common wheat

Common Chickweed

Charlock

Cleavers

Scentless Mayweed

Sugar beet

Maize

Black-grass

Loose Silky-bent