

Plankton - Random 5 Categories - 40 Images per category

Overall Statistics

Average AUC: 0.79

Total Super Categories: 19

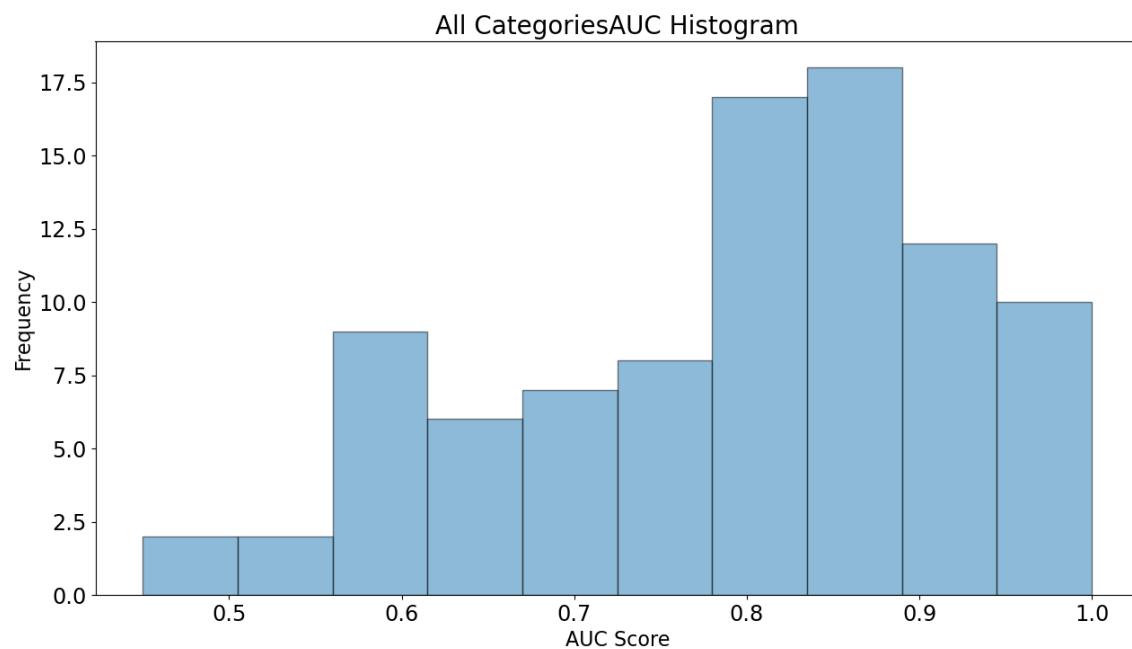
Total Categories: 91

Categories randomly combined: 5

Summary

Super Category	Categories	Average AUC	Min AUC	Max AUC	AUC S.D	Error
0	DactfragCerataul Guinardia_delicatula Pseudonitzschia Thalassiosira Tontonia_gracillima	0.75	0.55	0.92	0.14	0.05
1	Cerataulina Strombidium_capitatum Strombidium_inclinatum detritus pennate	0.67	0.48	0.86	0.15	0.05
2	Asterionellopsis Dinophysis Gyrodinium Pyramimonas_longicauda Strobilidium_morphotype1	0.81	0.68	0.96	0.12	0.05
3	G_delicatula_parasite Guinardia_flaccida Katodinium_or_Torodinium Pseudochattonella_farcimen dino_large1	0.85	0.75	1.00	0.09	0.05
4	Chaetoceros Ditylum_parasite G_delicatula_detritus Parvicorbicula_socialis Prorocentrum	0.71	0.60	0.80	0.08	0.05
5	Dictyocha Ephemera Skeletonema Stephanopyxis Strombidium_morphotype2	0.77	0.56	0.87	0.11	0.05
6	Ceratium Chaetoceros_flagellate Pleurosigma Proterothropsis_sp pennates_on_diatoms	0.84	0.64	0.96	0.12	0.05
	Chaetoceros_other					

7	Dactyliosolen Gonyaulax Pleuronema_sp dino30	0.86	0.73	0.95	0.08	0.05
8	Corethron Coscinodiscus Phaeocystis Strombidium_conicum diatom_flagellate	0.88	0.77	0.92	0.06	0.05
9	Ciliate_mix Emiliania_huxleyi Leegaardiella_ovalis Licmophora Paralia	0.81	0.65	0.88	0.08	0.05
10	Amphidinium_sp Cerataulina_flagellate Leptocylindrus Tintinnid other_interaction	0.75	0.60	0.87	0.10	0.05
11	Delphineis G_delicatula_external_parasite Thalassiosira_dirty Tontonia_appendiculariformis mix_elongated	0.67	0.45	0.89	0.17	0.05
12	Chaetoceros_pennate Chrysochromulina Strombidium_morphotype1 Strombidium_wulffii zooplankton	0.77	0.59	0.96	0.12	0.05
13	Heterocapsa_triquetra Protoperidinium Thalassionema amoeba bad	0.88	0.77	0.98	0.08	0.05
14	Dinobryon Guinardia_striata Lauderia Rhizosolenia kiteflagellates	0.79	0.56	0.97	0.14	0.05
15	Eucampia Strombidium_oculatum clusterflagellate flagellate_sp3	0.83	0.78	0.91	0.05	0.05
16	Chaetoceros_didymus Cylindrotheca Mesodinium_sp bead	0.9	0.82	0.98	0.07	0.05
17	Ditylum Euglena pennate_morphotype1 spore	0.69	0.57	0.95	0.16	0.05
18	Chaetoceros_didymus_flagellate Laboea_strobila Leptocylindrus_mediterraneus Odontella	0.8	0.75	0.86	0.04	0.06

Overall AUC Histogram

Super-Category 0

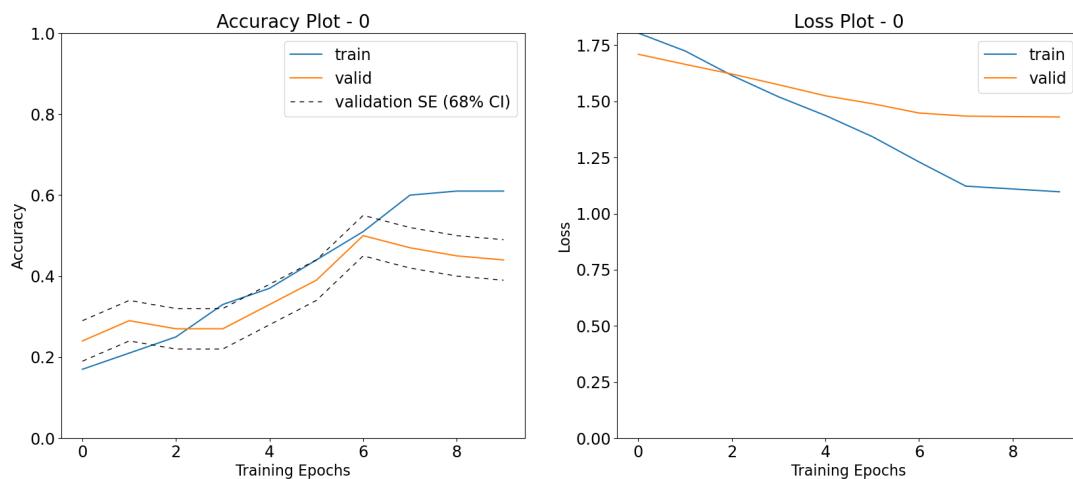
Statistics

Total Images	200
Train Images	100
Valid Images	100
Training Time	1m 4s
Best Train Accuracy	0.61
Best Valid Accuracy	0.5
AUC	0.75
2*AUC-1	0.5
Standard Error	0.05

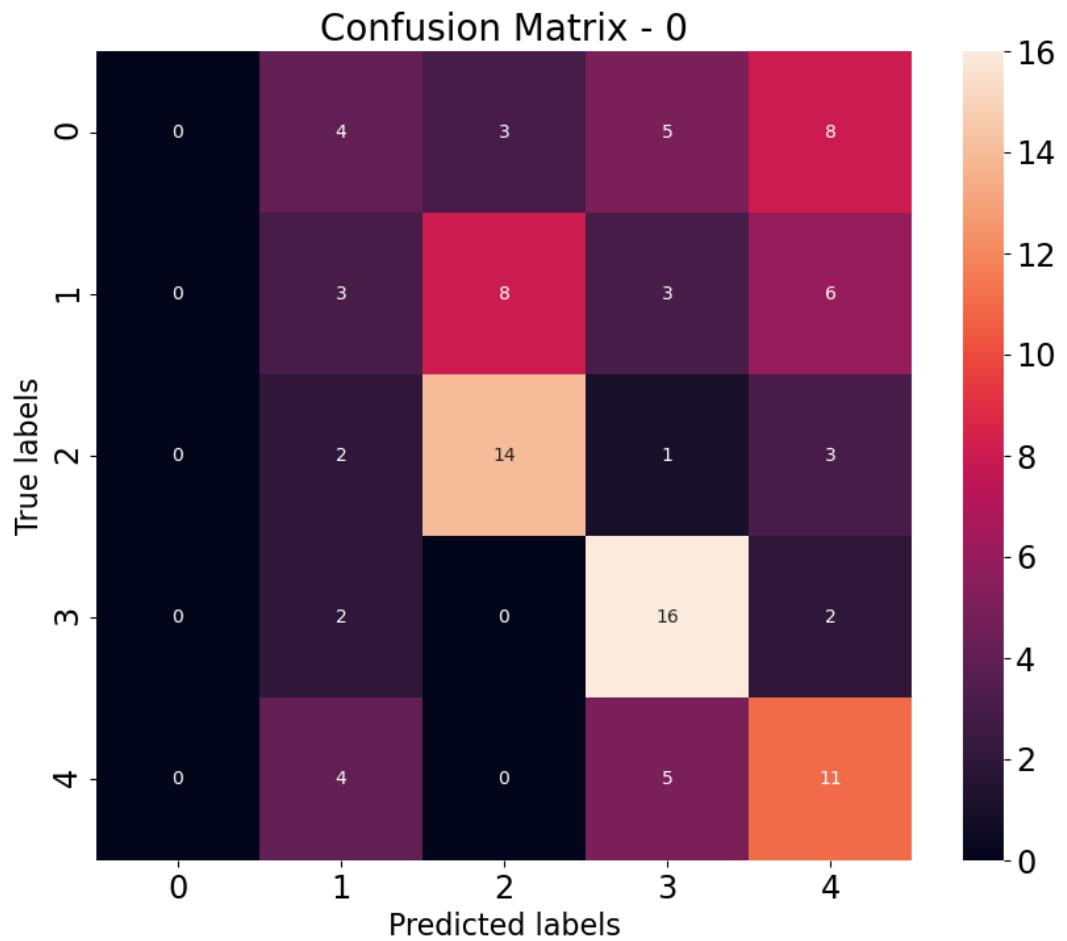
Categories

Category #	Category Name
0	DactFragCerataul
1	Guinardia_delicatula
2	Pseudonitzschia
3	Thalassiosira
4	Tontonia_gracillima

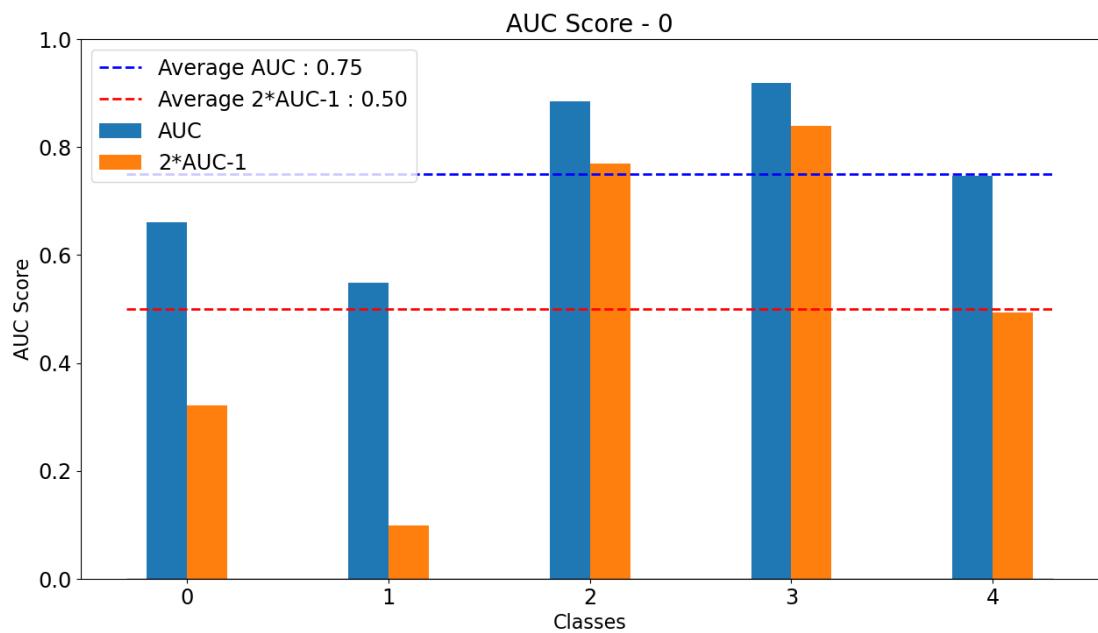
Accuracy Loss Plot



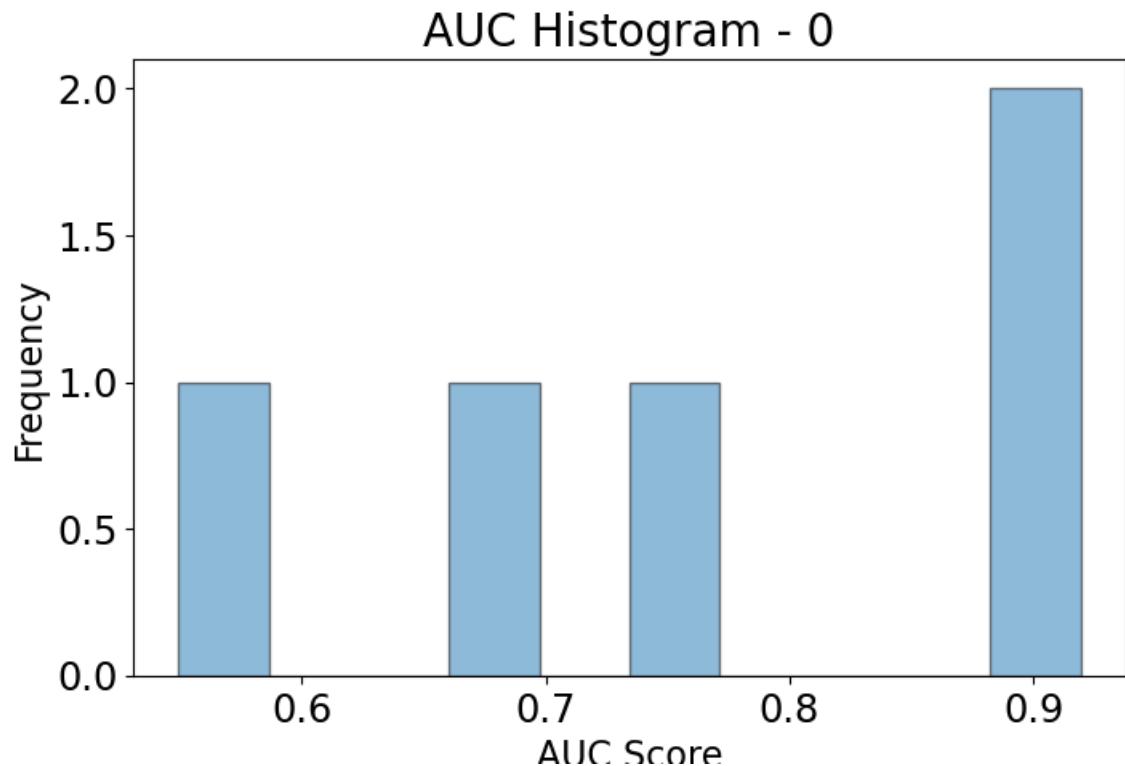
Confusion Matrix



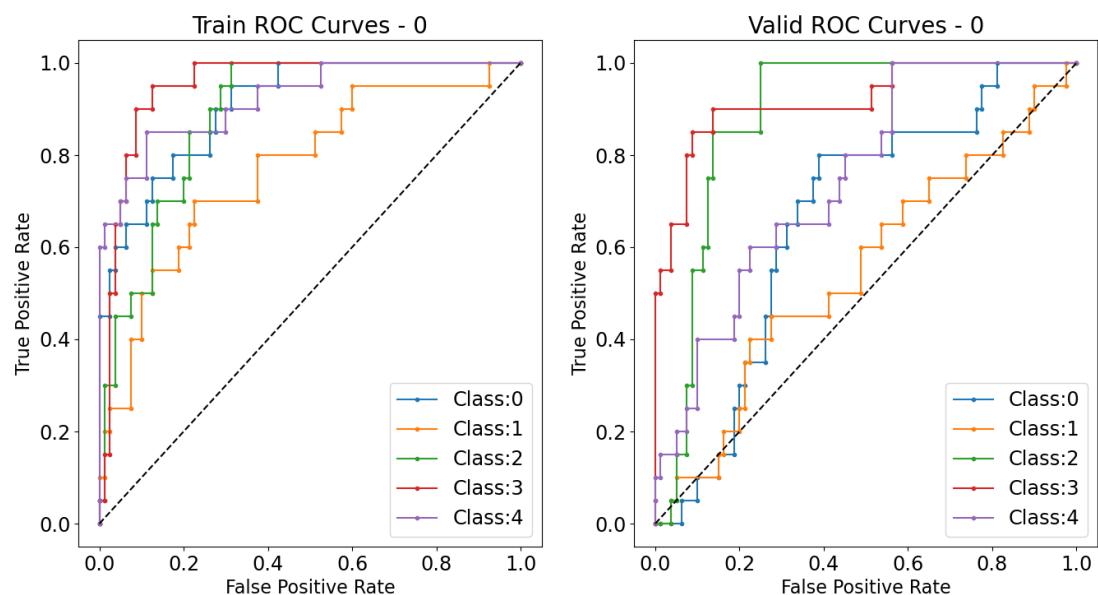
AUC



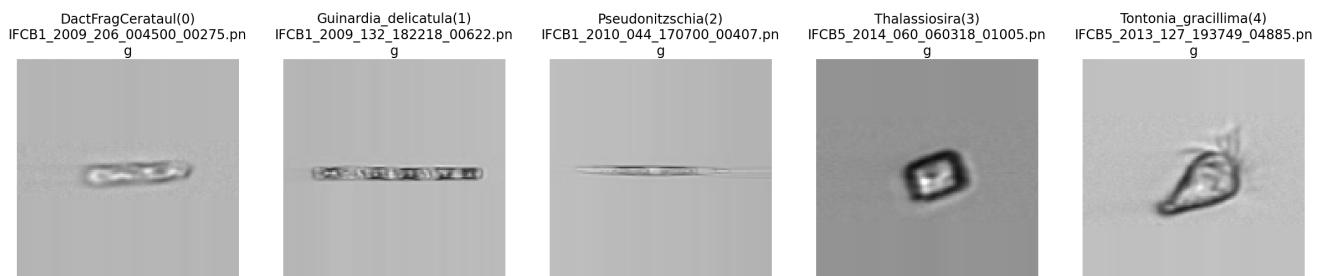
AUC Histogram



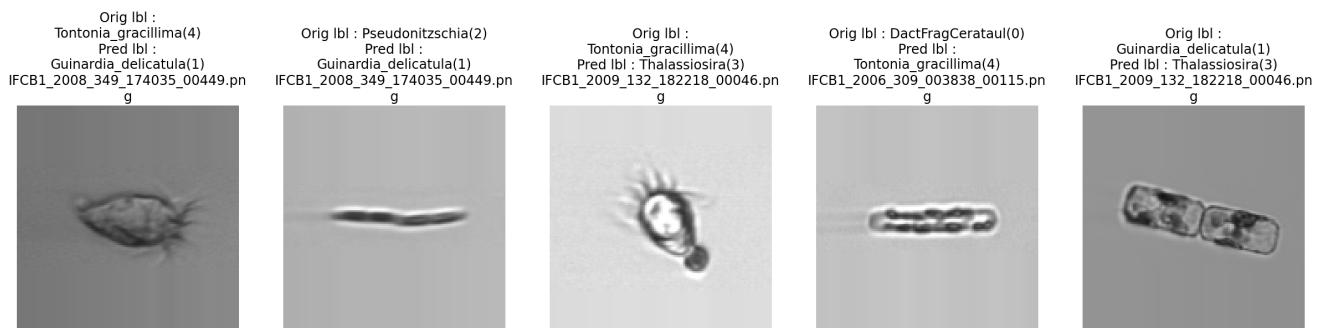
ROC Curves



Sample Images



Wrongly Classified Images



Super-Category 1

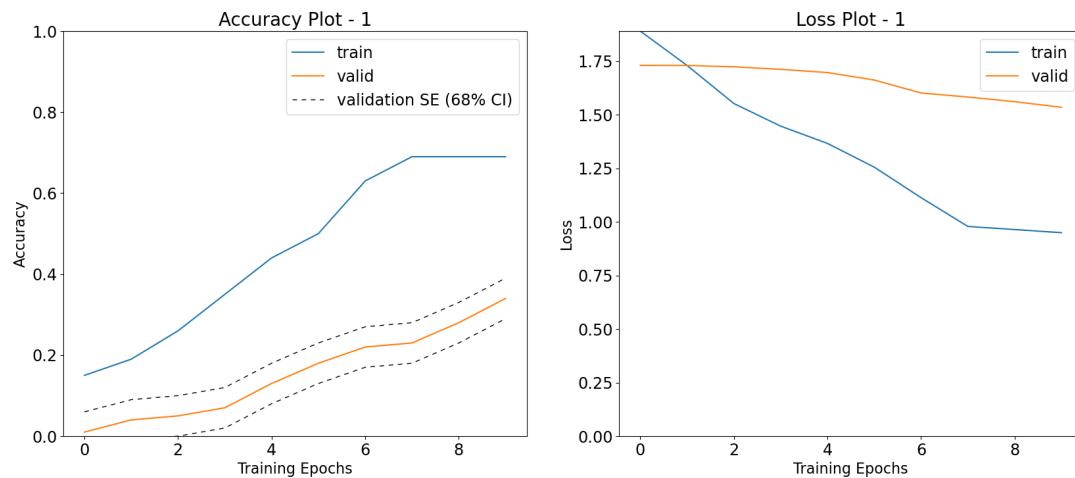
Statistics

Total Images	200
Train Images	100
Valid Images	100
Training Time	1m 4s
Best Train Accuracy	0.69
Best Valid Accuracy	0.34
AUC	0.67
2*AUC-1	0.34
Standard Error	0.05

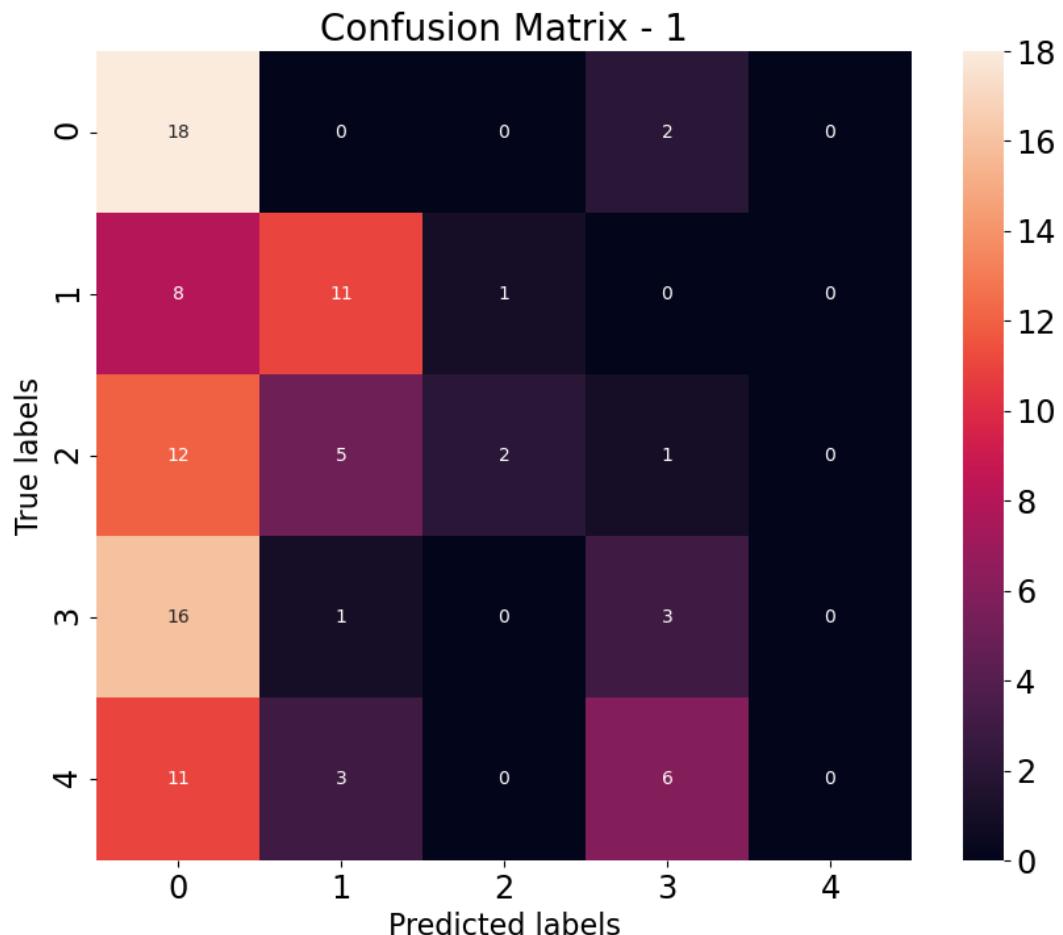
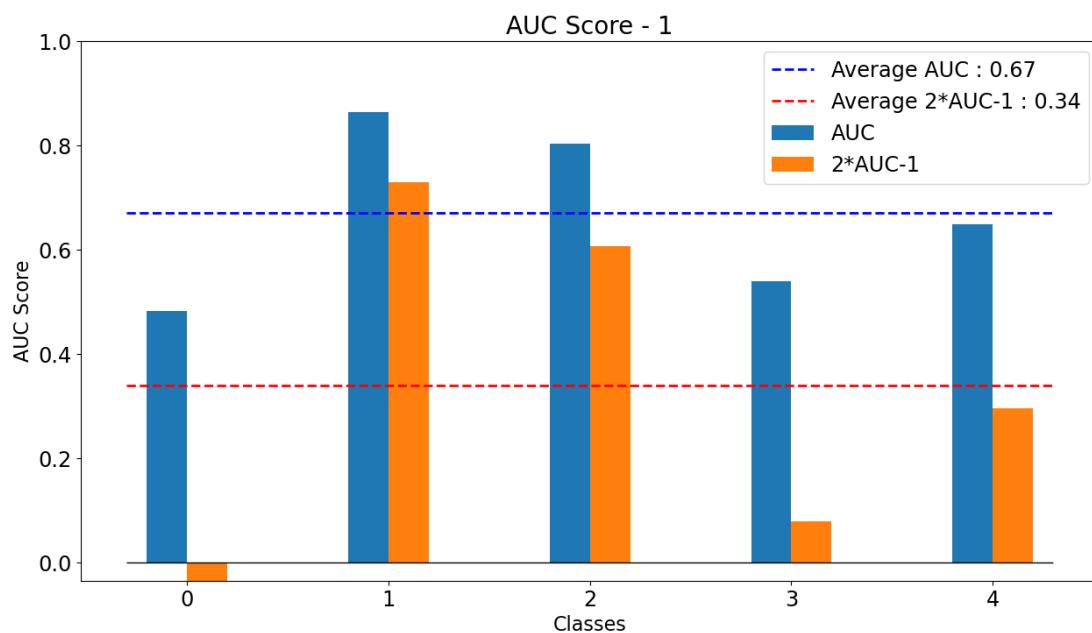
Categories

Category #	Category Name
0	Cerataulina
1	Strombidium_capitatum
2	Strombidium_inclinatum
3	detritus
4	pennate

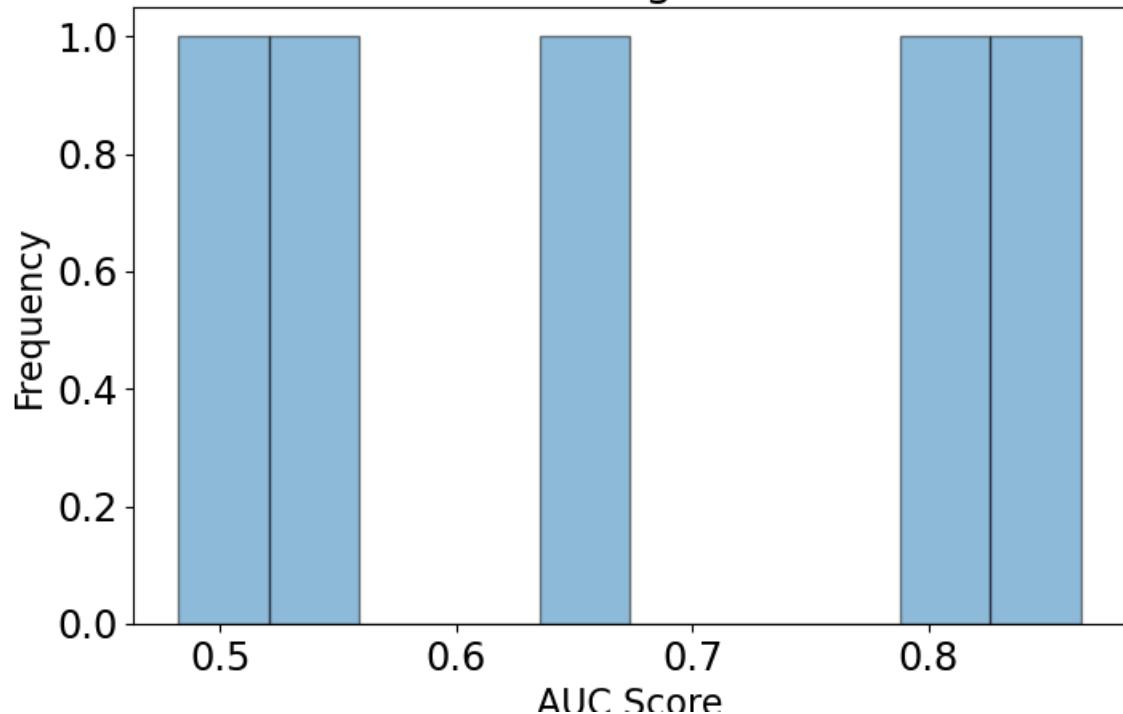
Accuracy Loss Plot



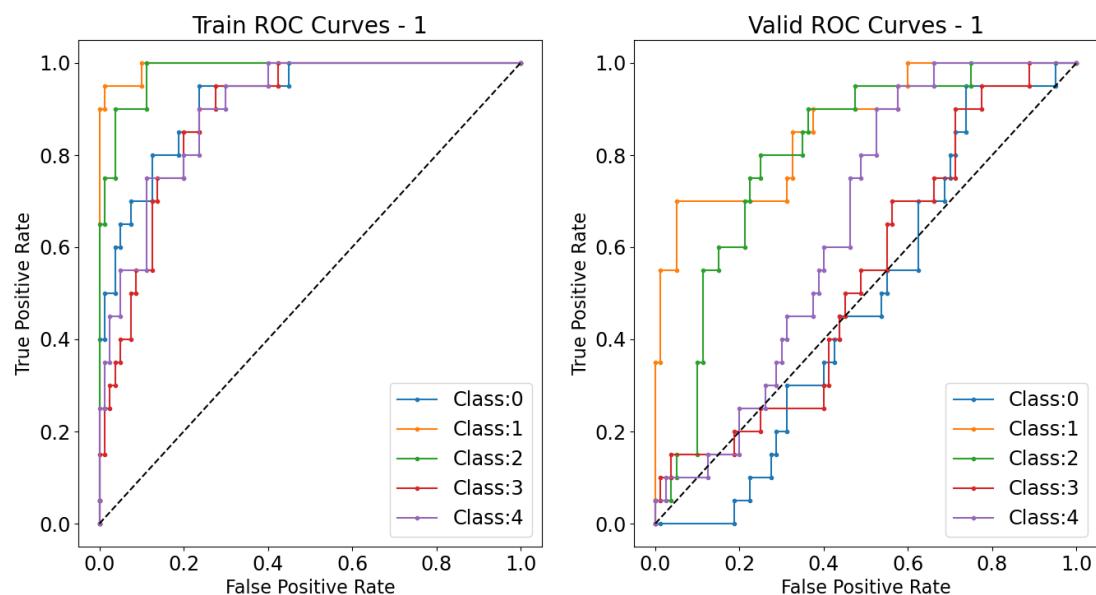
Confusion Matrix

**AUC****AUC Histogram**

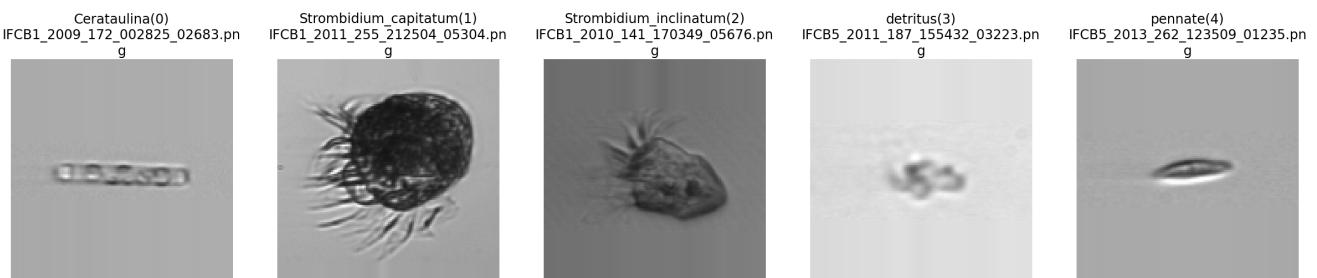
AUC Histogram - 1



ROC Curves

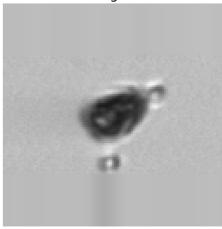


Sample Images

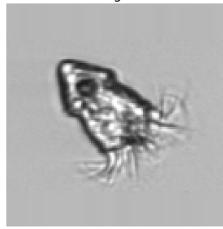


Wrongly Classified Images

Orig lbl : detritus(3)
Pred lbl : Cerataulina(0)
IFCB1_2009_228_005118_01243.pn
g



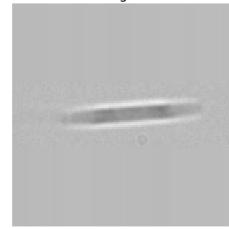
Orig lbl :
Strombidium_inclinatum(2)
Pred lbl : Cerataulina(0)
IFCB1_2009_228_005118_01243.pn
g



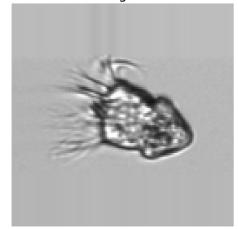
Orig lbl : pennate(4)
Pred lbl : Cerataulina(0)
IFCB1_2009_228_005118_01243.pn
g



Orig lbl : pennate(4)
Pred lbl :
Strombidium_capitatum(1)
IFCB1_2009_267_004410_02664.pn
g



Orig lbl :
Strombidium_inclinatum(2)
Pred lbl : Cerataulina(0)
IFCB1_2009_228_005118_01243.pn
g



Super-Category 2

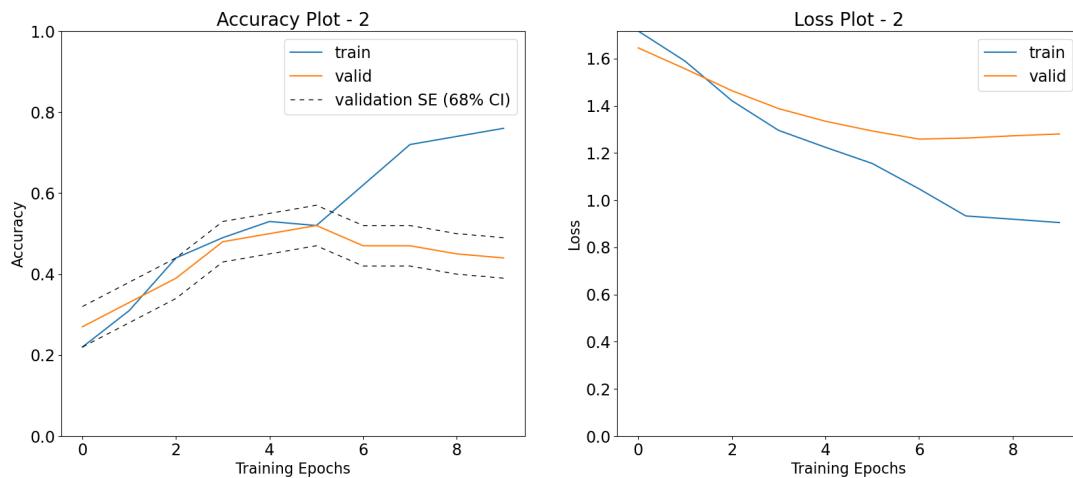
Statistics

Total Images	200
Train Images	100
Valid Images	100
Training Time	1m 4s
Best Train Accuracy	0.76
Best Valid Accuracy	0.52
AUC	0.81
2*AUC-1	0.61
Standard Error	0.05

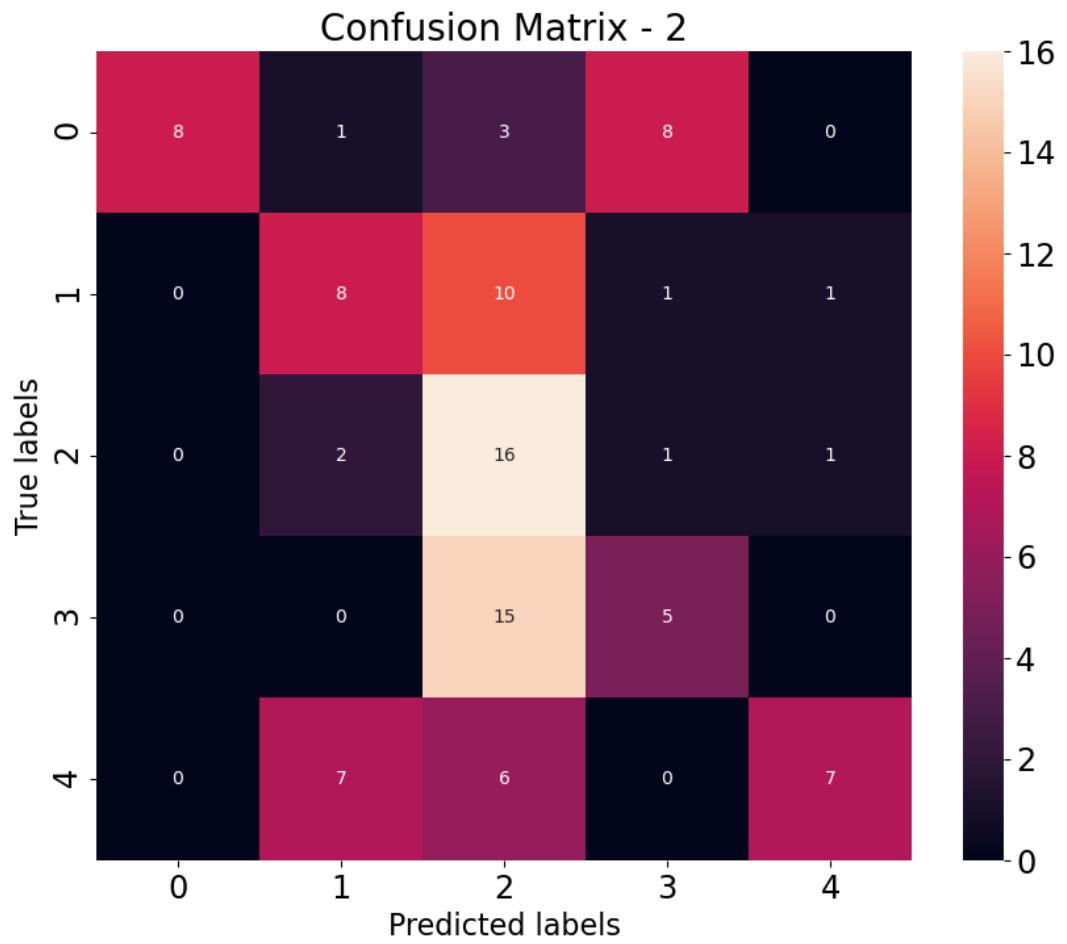
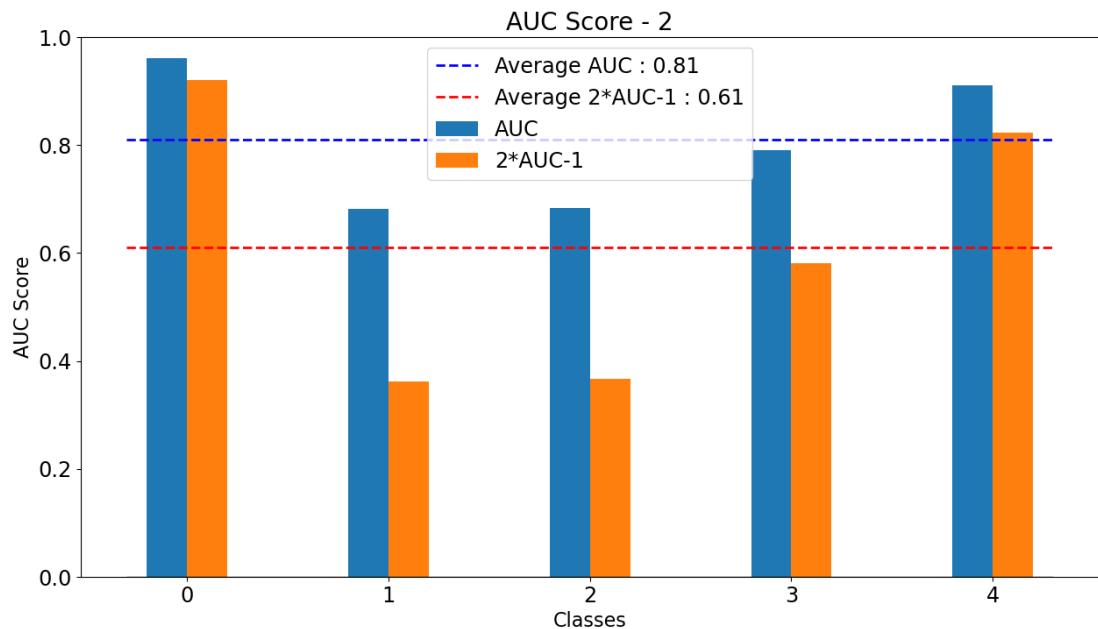
Categories

Category #	Category Name
0	Asterionellopsis
1	Dinophysis
2	Gyrodinium
3	Pyramimonas_longicauda
4	Strobilidium_morphotype1

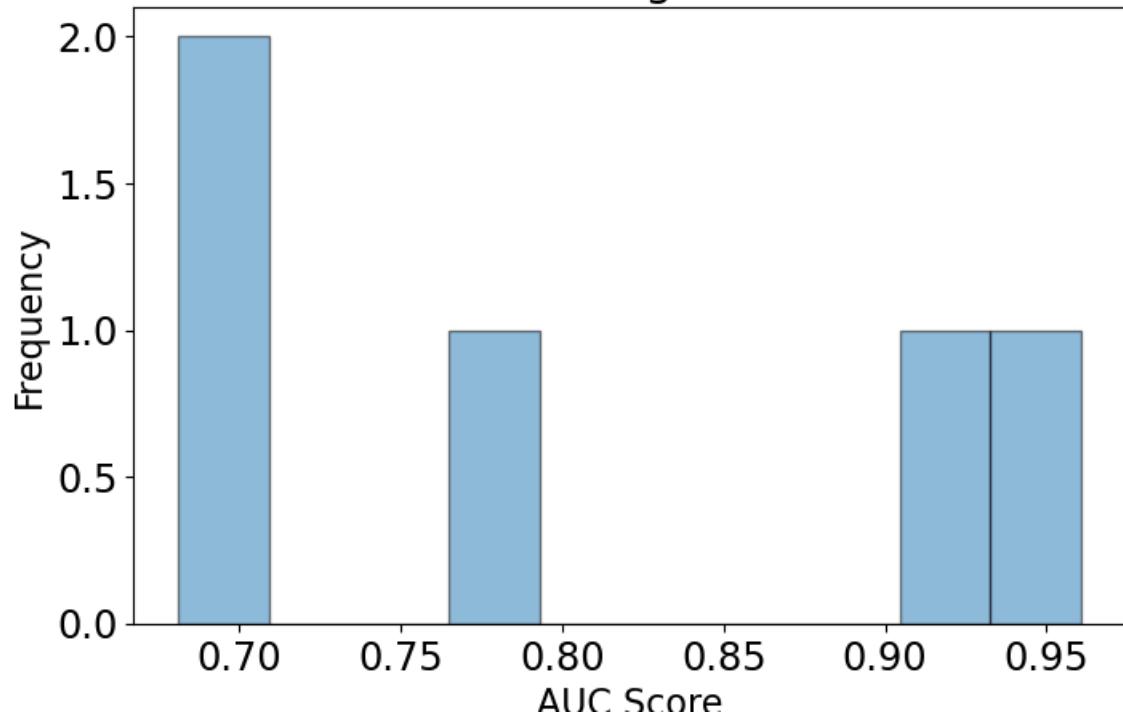
Accuracy Loss Plot



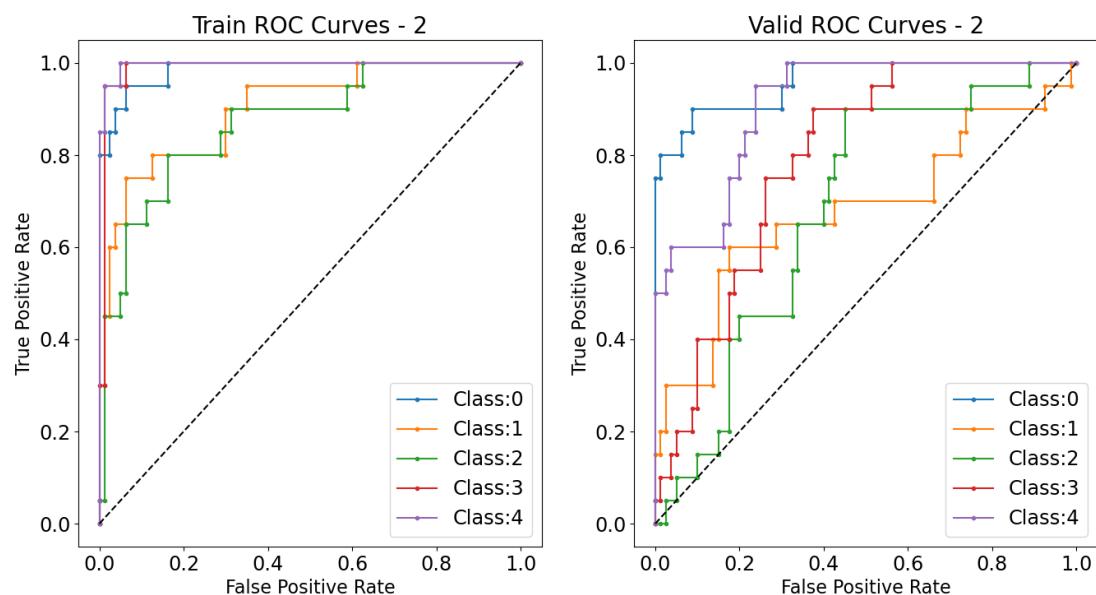
Confusion Matrix

**AUC****AUC Histogram**

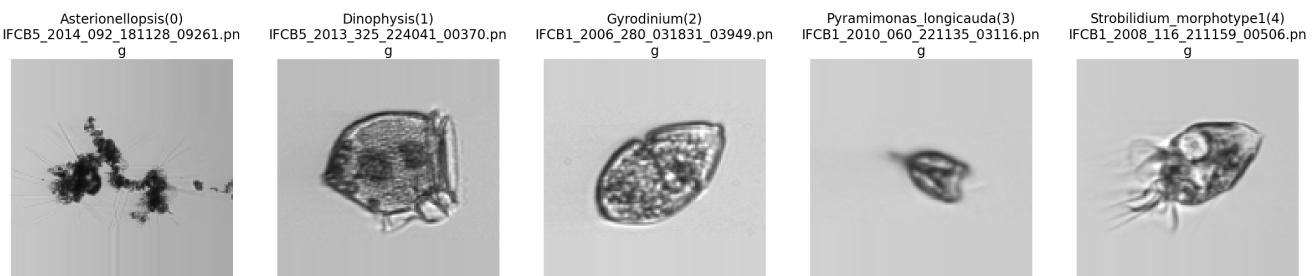
AUC Histogram - 2



ROC Curves

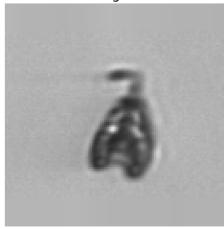


Sample Images

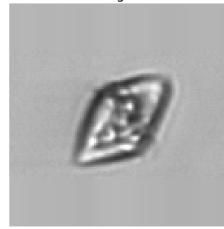


Wrongly Classified Images

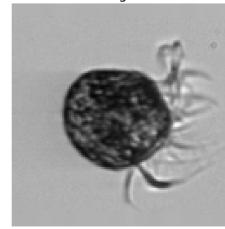
Orig lbl :
Pyramimonas_longicauda(3)
Pred lbl : Gyrodinium(2)
IFCB1_2009_122_123934_00532.pn
g



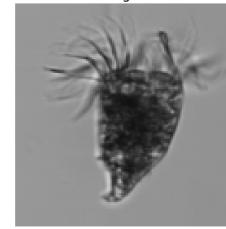
Orig lbl : Gyrodinium(2)
Pred lbl :
Pyramimonas_longicauda(3)
IFCB1_2011_318_035238_00271.pn
g



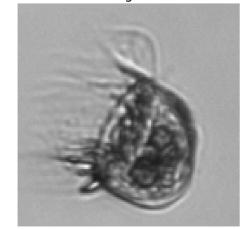
Orig lbl :
Strobilidium_morphotype1(4)
Pred lbl : Dinophysis(1)
IFCB1_2008_072_222957_00569.pn
g



Orig lbl :
Strobilidium_morphotype1(4)
Pred lbl : Dinophysis(1)
IFCB1_2008_072_222957_00569.pn
g



Orig lbl :
Strobilidium_morphotype1(4)
Pred lbl : Dinophysis(1)
IFCB1_2008_072_222957_00569.pn
g



Super-Category 3

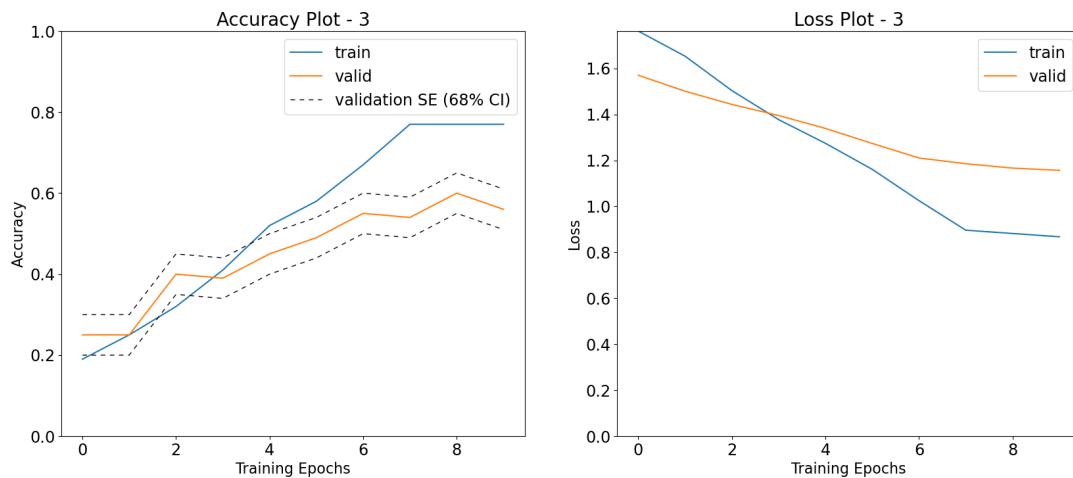
Statistics

Total Images	200
Train Images	100
Valid Images	100
Training Time	1m 4s
Best Train Accuracy	0.77
Best Valid Accuracy	0.6
AUC	0.85
2*AUC-1	0.7
Standard Error	0.05

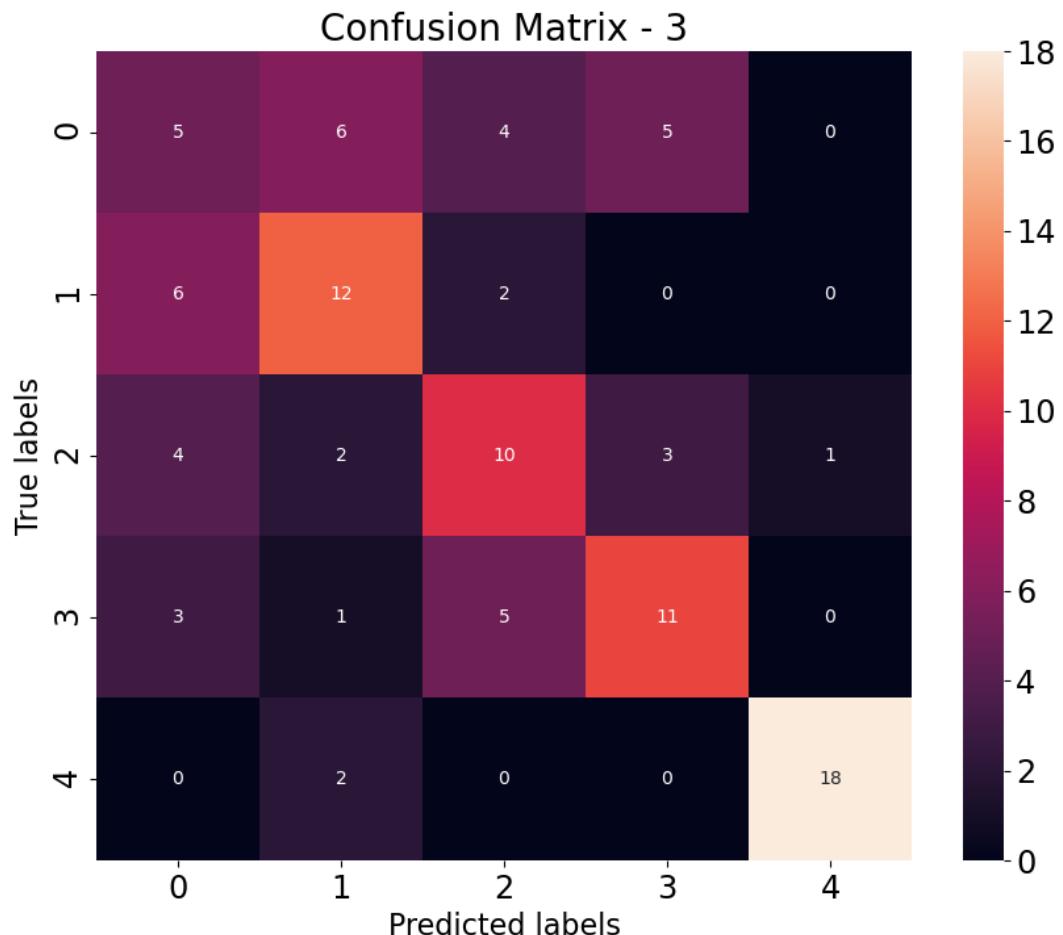
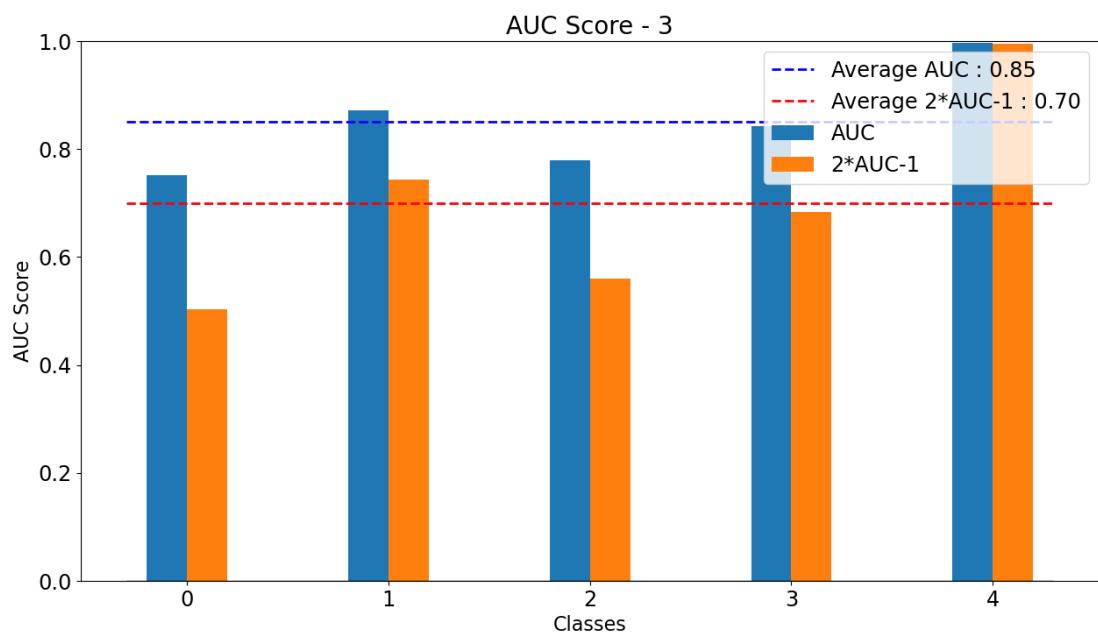
Categories

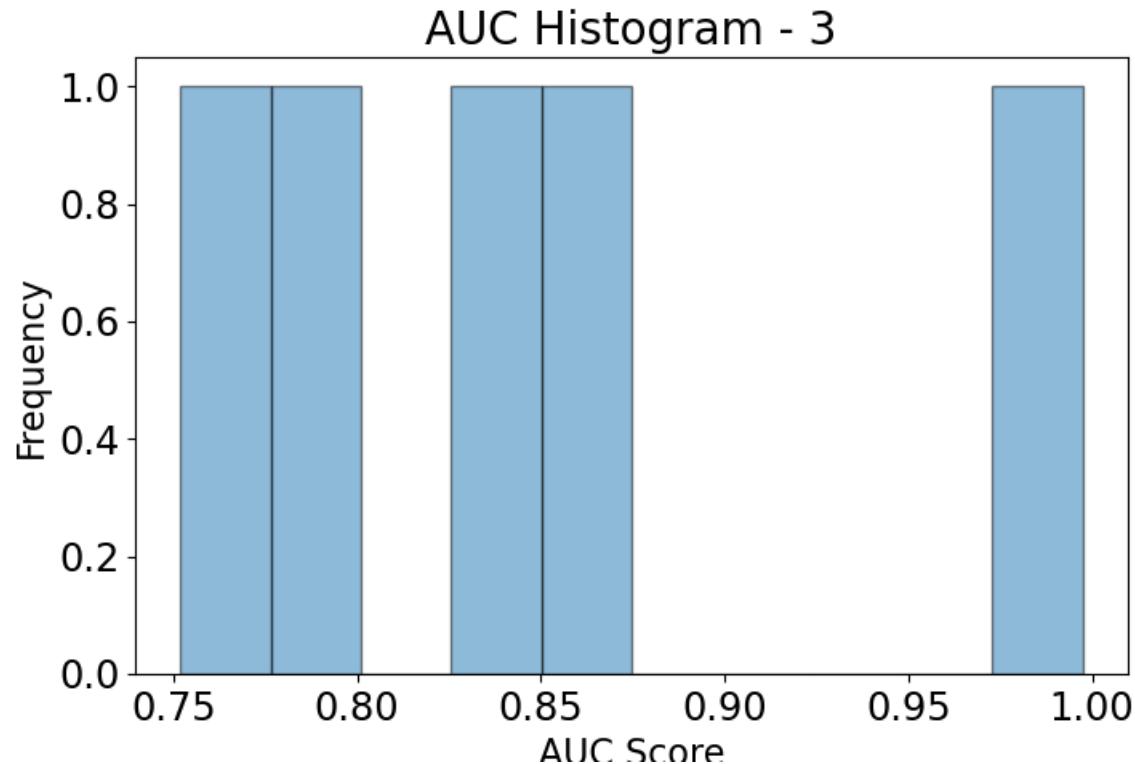
Category #	Category Name
0	G_delicatula_parasite
1	Guinardia_flaccida
2	Katodinium_or_Torodinium
3	Pseudochattonella_farcimen
4	dino_large1

Accuracy Loss Plot

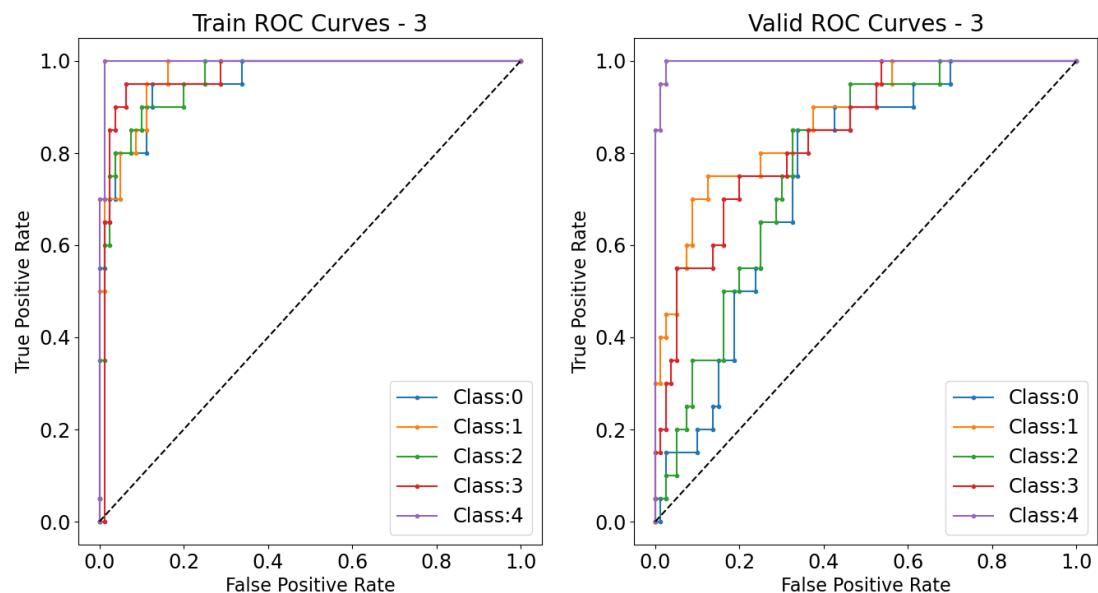


Confusion Matrix

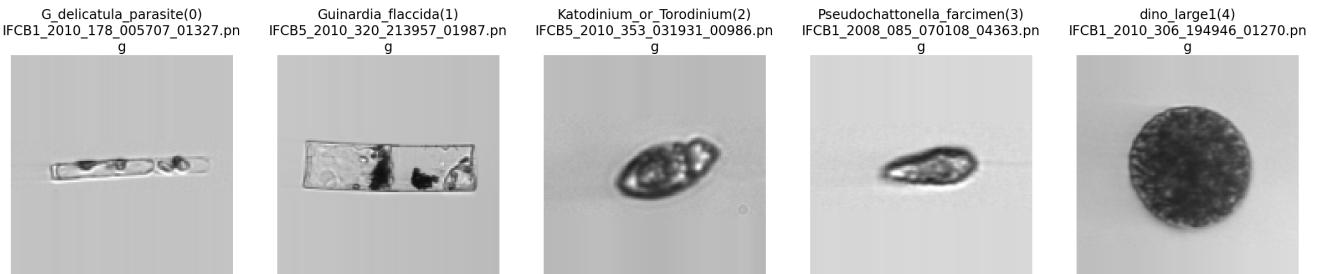
**AUC****AUC Histogram**



ROC Curves

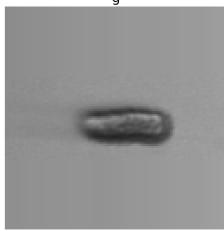


Sample Images

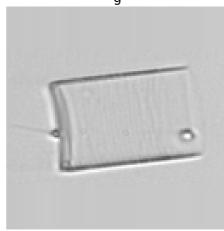


Wrongly Classified Images

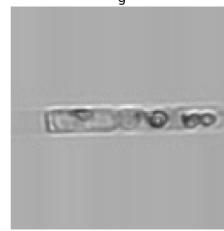
Orig lbl :
*Pseudochattonella*_farcimen(3)
Pred lbl :
Katodinium_or_Torodinium(2)
IFCB1_2010_306_194946_02589.pn
g



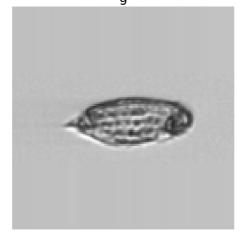
Orig lbl :
*Guinardia*_flaccida(1)
Pred lbl :
Katodinium_or_Torodinium(2)
IFCB1_2010_306_194946_02589.pn
g



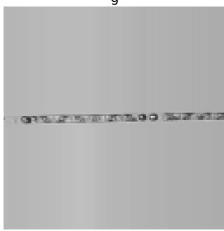
Orig lbl :
*G_delicatula*_parasite(0)
Pred lbl :
Katodinium_or_Torodinium(2)
IFCB1_2010_306_194946_02589.pn
g



Orig lbl :
Katodinium_or_Torodinium(2)
Pred lbl :
*G_delicatula*_parasite(0)
IFCB1_2013_057_135924_00431.pn
g



Orig lbl :
*G_delicatula*_parasite(0)
Pred lbl :
*Guinardia*_flaccida(1)
IFCB1_2009_122_091029_00149.pn
g



Super-Category 4

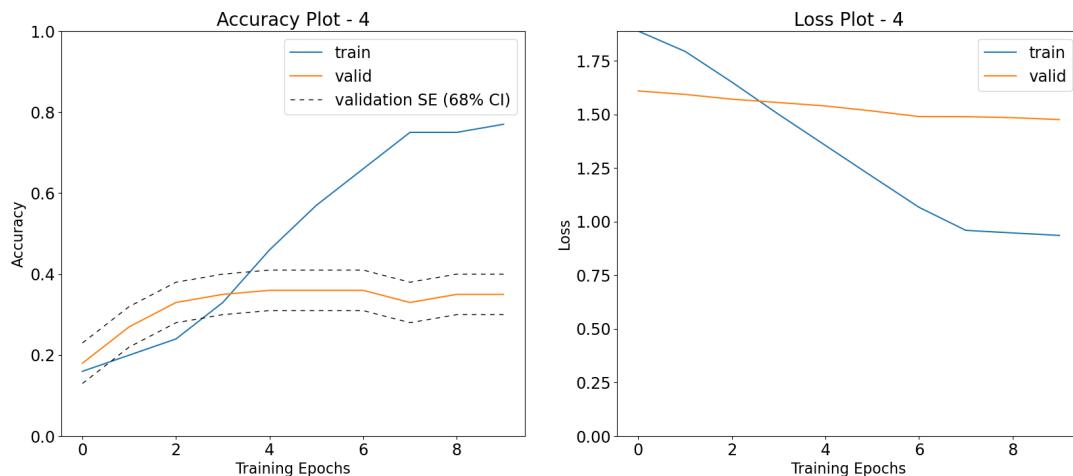
Statistics

Total Images	200
Train Images	100
Valid Images	100
Training Time	1m 4s
Best Train Accuracy	0.77
Best Valid Accuracy	0.36
AUC	0.71
2*AUC-1	0.43
Standard Error	0.05

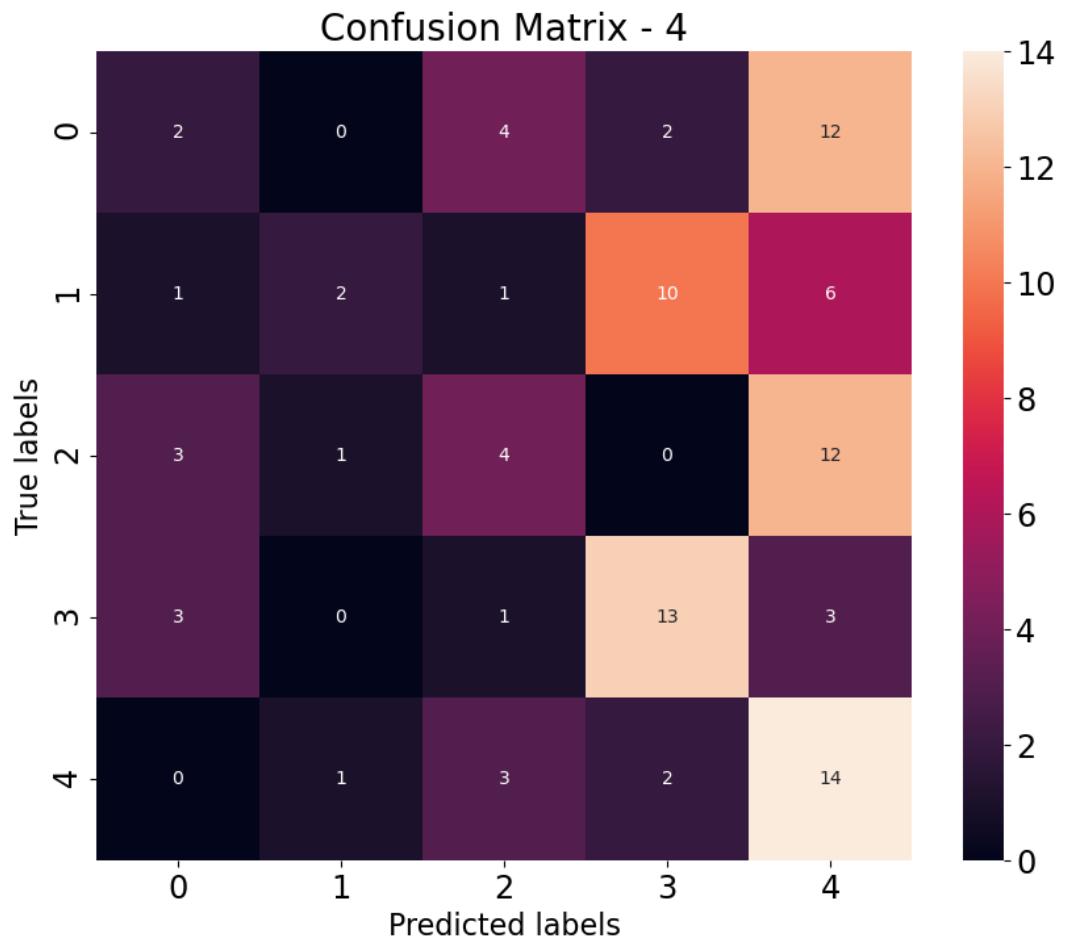
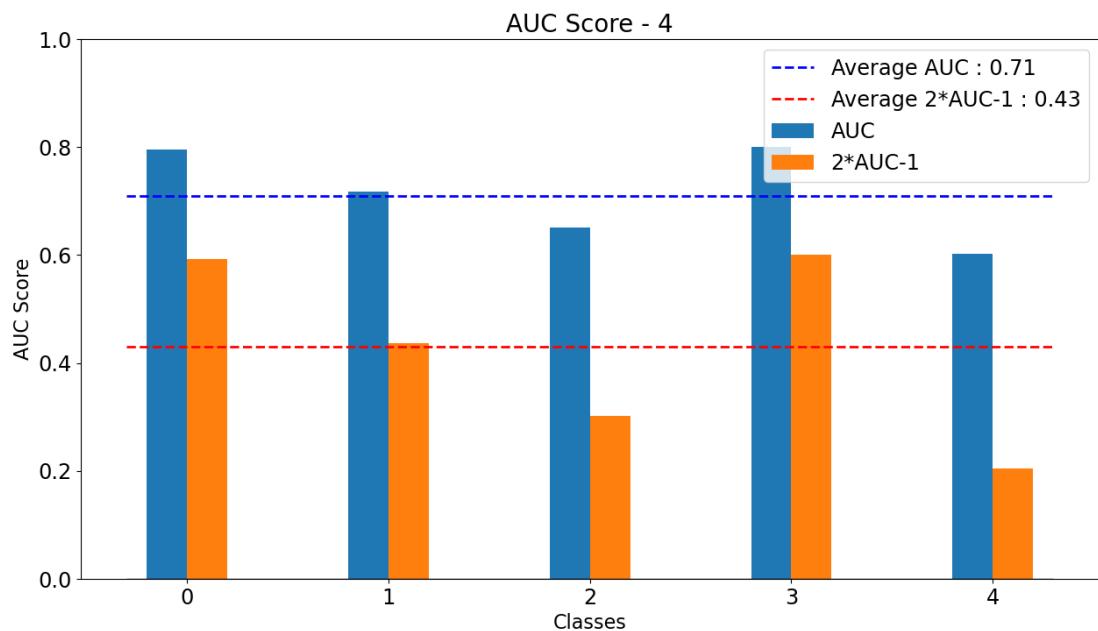
Categories

Category #	Category Name
0	Chaetoceros
1	Ditylum_parasite
2	G_delicatula_detritus
3	Parvicorbicula_socialis
4	Prorocentrum

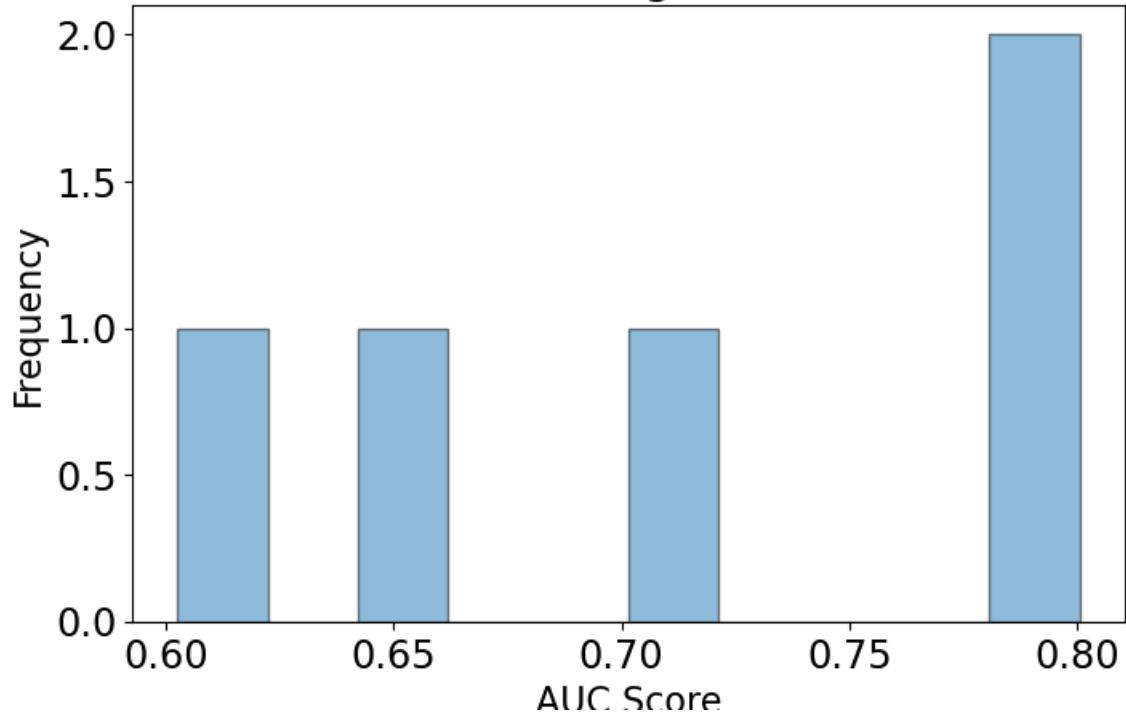
Accuracy Loss Plot



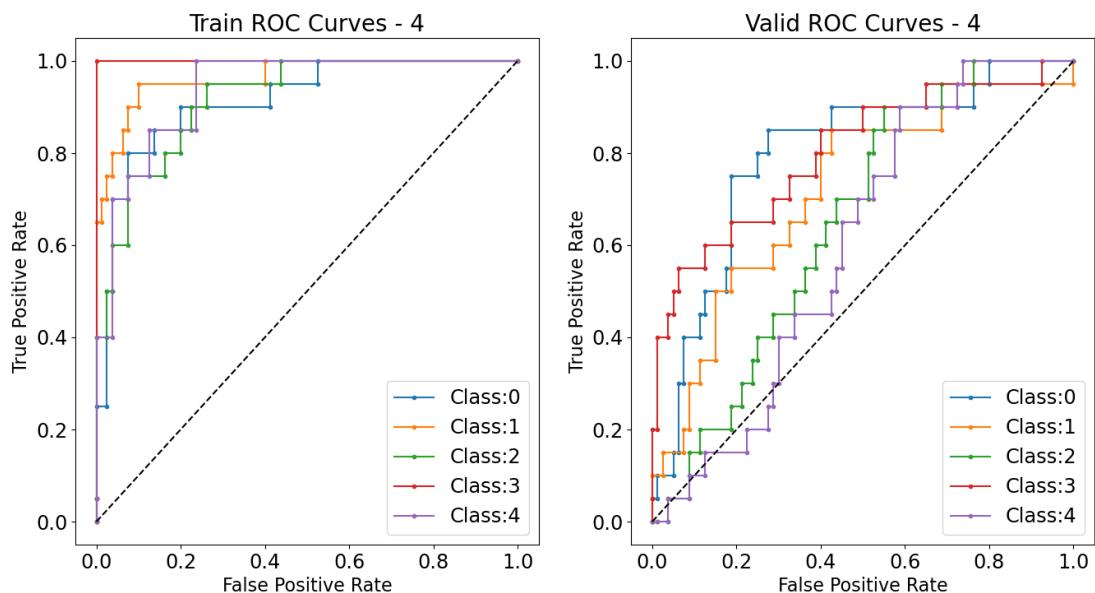
Confusion Matrix

**AUC****AUC Histogram**

AUC Histogram - 4



ROC Curves



Sample Images



Wrongly Classified Images

Orig lbl :
Parvicorbicula socialis(3)
Pred lbl : *Prorocentrum*(4)
IFCB1_2007_032_183908_00035.pn
g



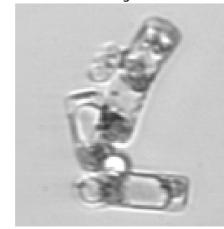
Orig lbl :
G.delicatula_detritus(2)
Pred lbl : *Prorocentrum*(4)
IFCB1_2007_032_183908_00035.pn
g



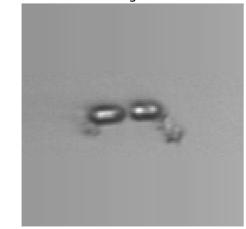
Orig lbl : *Prorocentrum*(4)
Pred lbl :
G.delicatula_detritus(2)
IFCB5_2013_225_165823_05323.pn
g



Orig lbl :
G.delicatula_detritus(2)
Pred lbl : *Chaetoceros*(0)
IFCB5_2014_078_005507_03041.pn
g



Orig lbl : *Chaetoceros*(0)
Pred lbl : *Prorocentrum*(4)
IFCB1_2007_032_183908_00035.pn
g



Super-Category 5

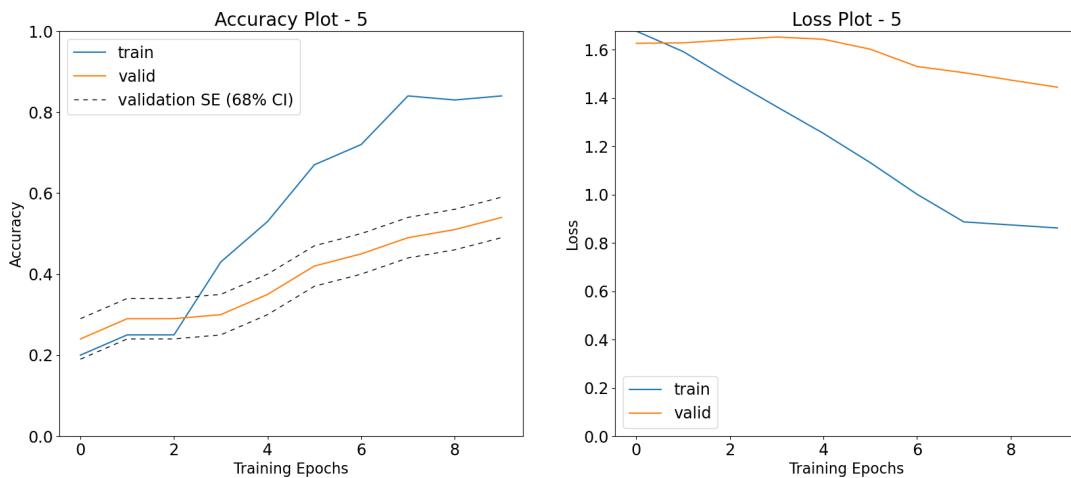
Statistics

Total Images	200
Train Images	100
Valid Images	100
Training Time	1m 4s
Best Train Accuracy	0.84
Best Valid Accuracy	0.54
AUC	0.77
2*AUC-1	0.53
Standard Error	0.05

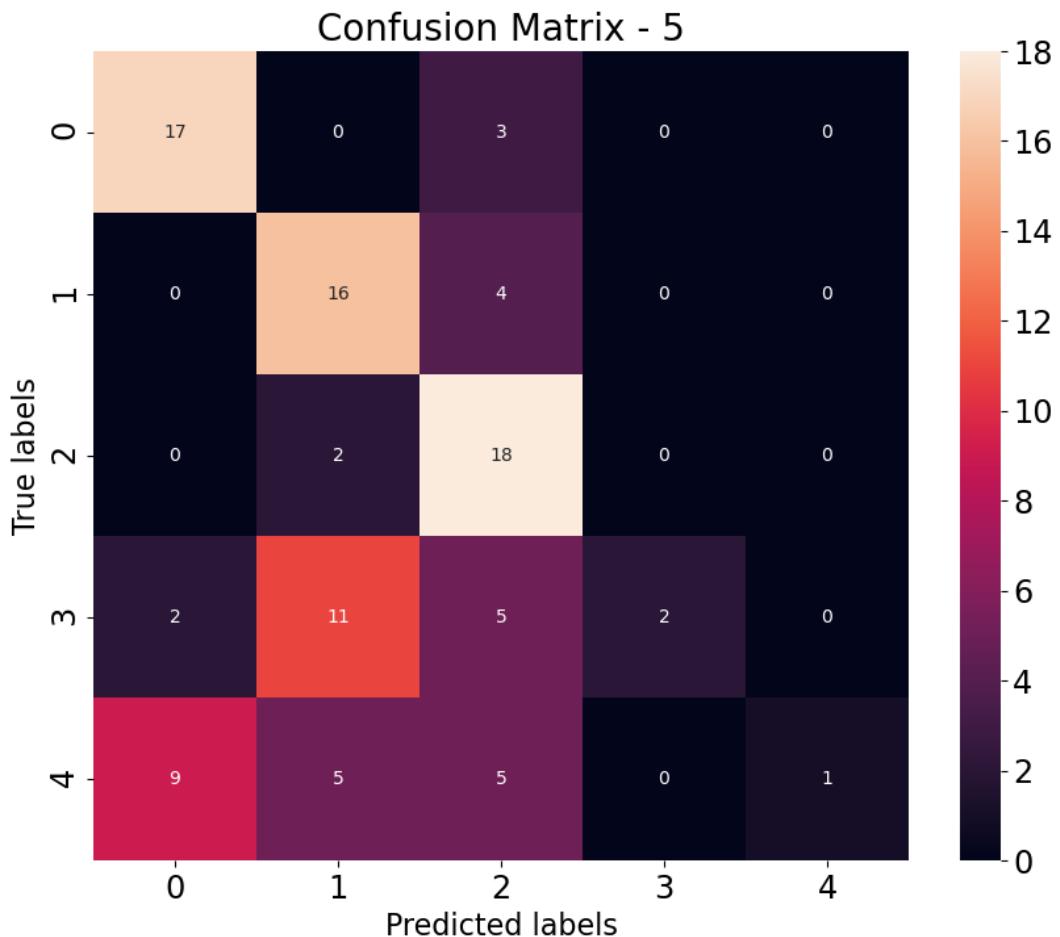
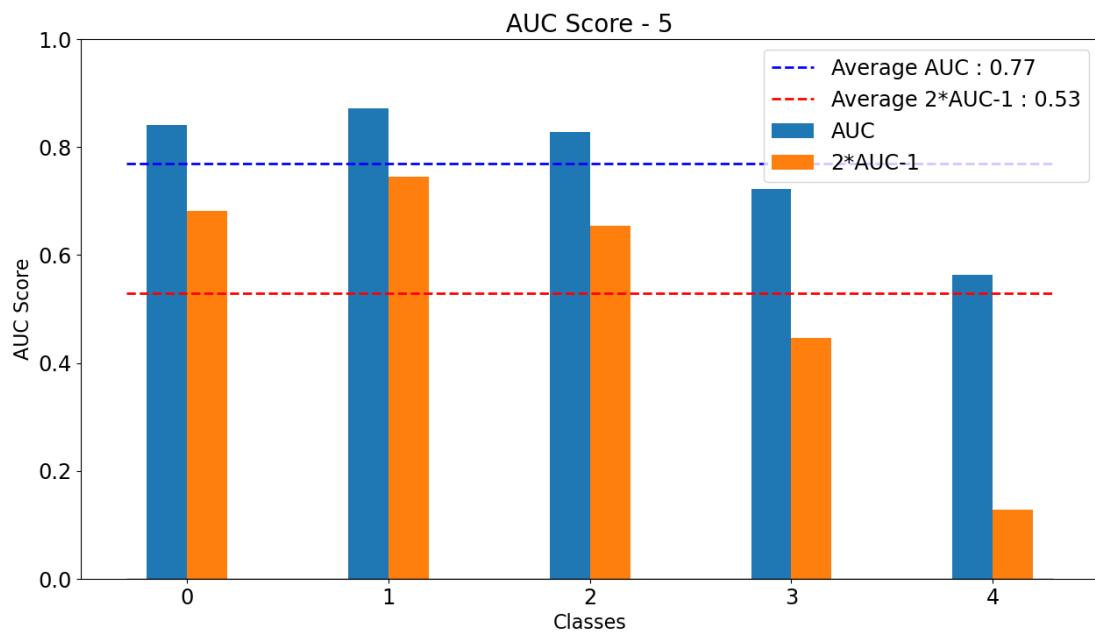
Categories

Category #	Category Name
0	Dictyocha
1	Ephemera
2	Skeletonema
3	Stephanopyxis
4	Strombidium_morphotype2

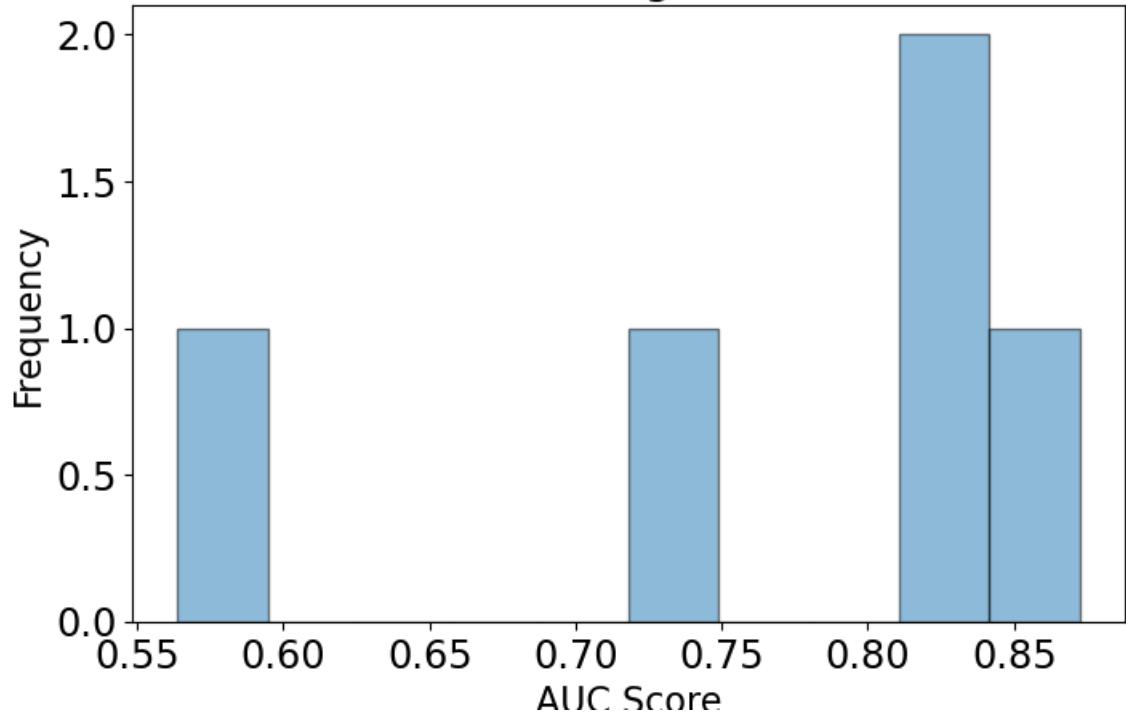
Accuracy Loss Plot



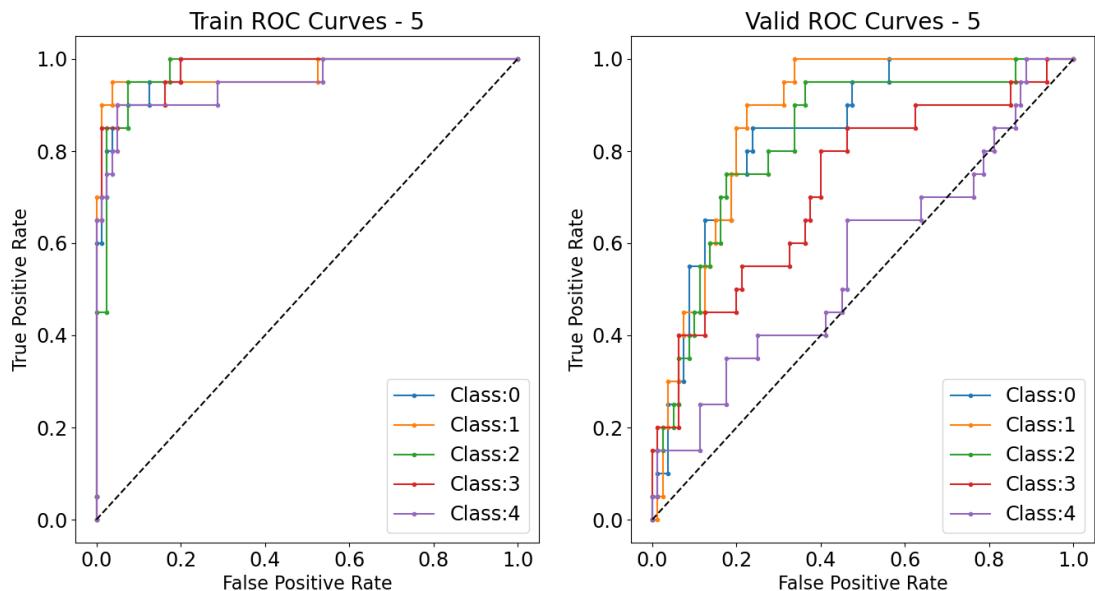
Confusion Matrix

**AUC****AUC Histogram**

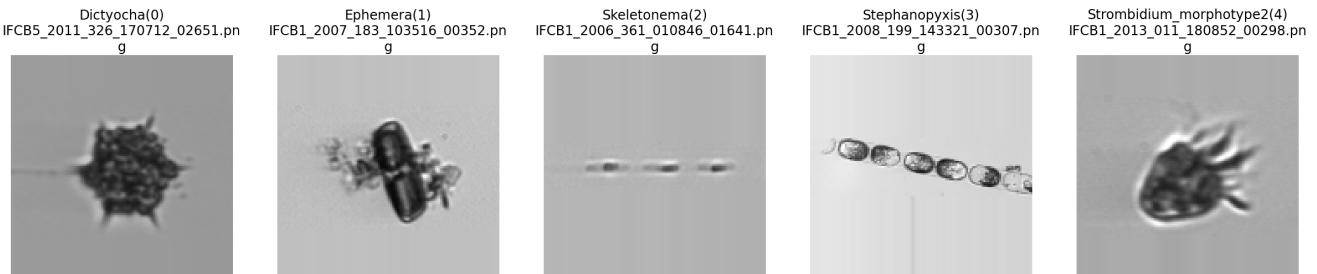
AUC Histogram - 5



ROC Curves

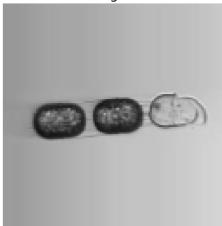


Sample Images



Wrongly Classified Images

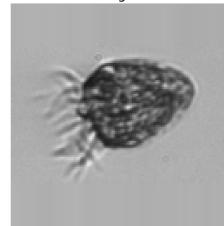
Orig lbl : Stephanopyxis(3)
Pred lbl : Ephemera(1)
IFCB1_2009_249_183154_09200.pn
g



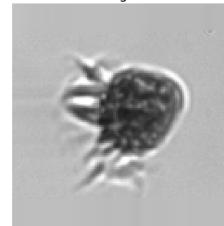
Orig lbl :
Strombidium_morphotype2(4)
Pred lbl : Dictyocha(0)
IFCB5_2011_075_192505_00279.pn
g



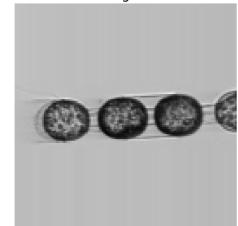
Orig lbl :
Strombidium_morphotype2(4)
Pred lbl : Dictyocha(0)
IFCB5_2011_075_192505_00279.pn
g



Orig lbl :
Strombidium_morphotype2(4)
Pred lbl : Ephemera(1)
IFCB1_2009_249_183154_09200.pn
g



Orig lbl : Stephanopyxis(3)
Pred lbl : Ephemera(1)
IFCB1_2009_249_183154_09200.pn
g



Super-Category 6

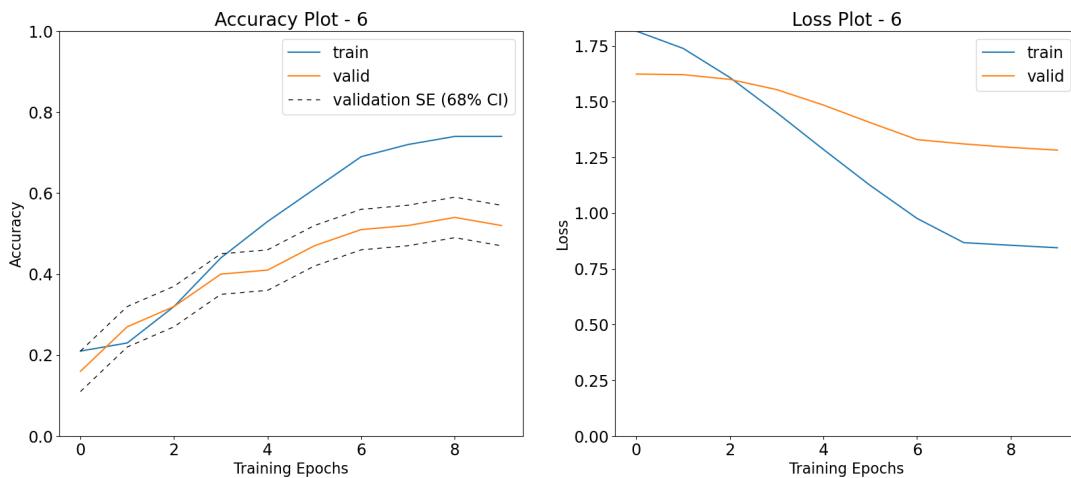
Statistics

Total Images	200
Train Images	100
Valid Images	100
Training Time	1m 4s
Best Train Accuracy	0.74
Best Valid Accuracy	0.54
AUC	0.84
2*AUC-1	0.67
Standard Error	0.05

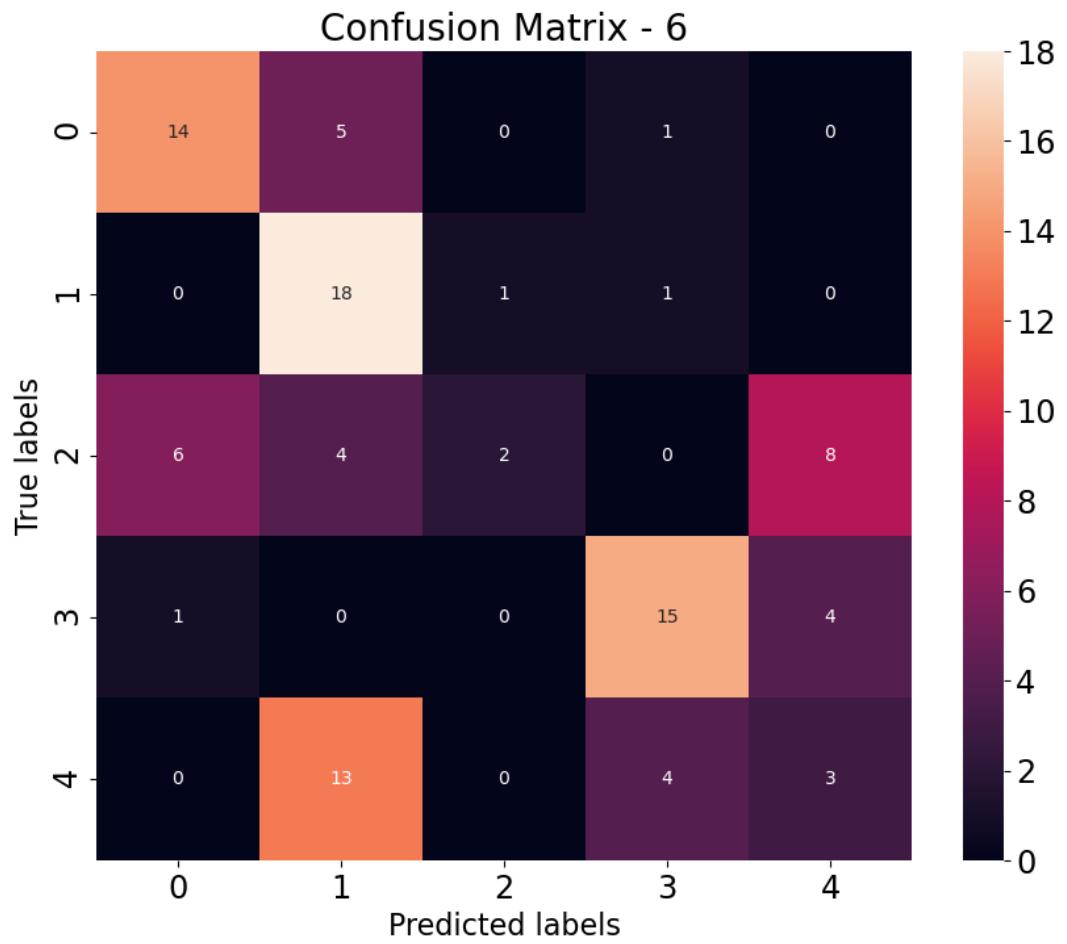
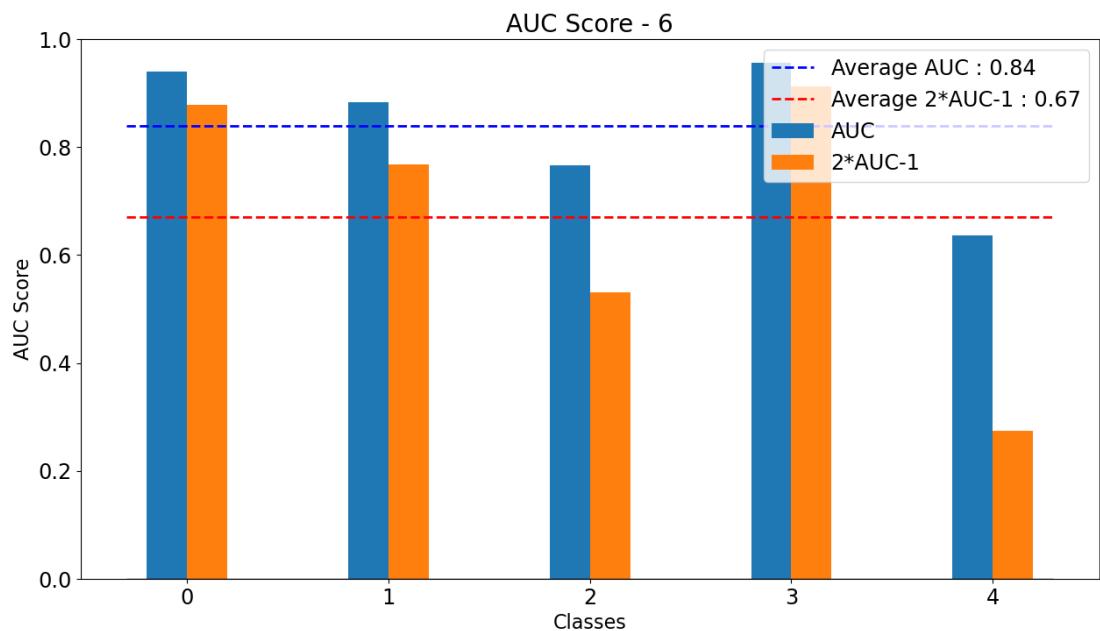
Categories

Category #	Category Name
0	Ceratium
1	Chaetoceros_flagellate
2	Pleurosigma
3	Proterothropsis_sp
4	pennates_on_diatoms

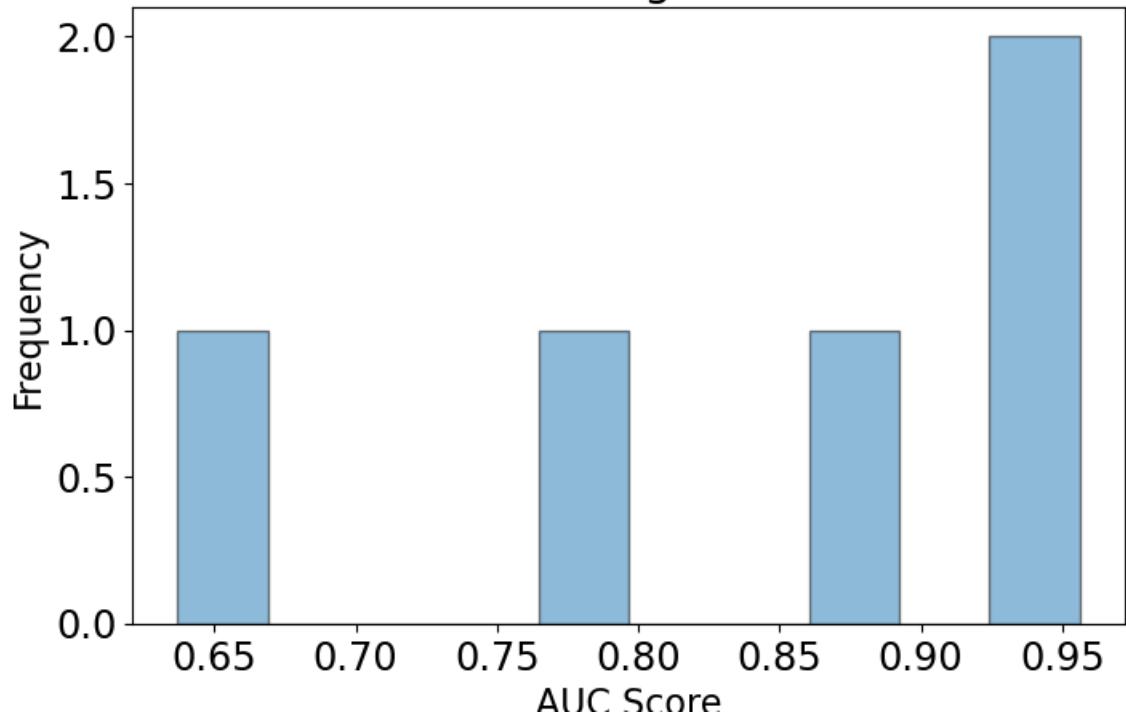
Accuracy Loss Plot



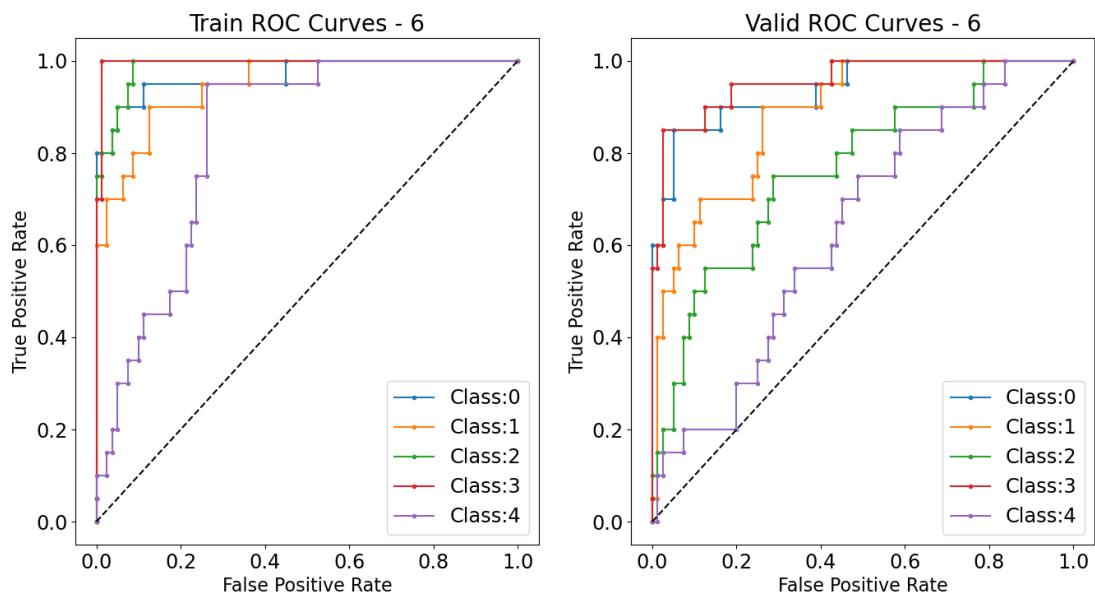
Confusion Matrix

**AUC****AUC Histogram**

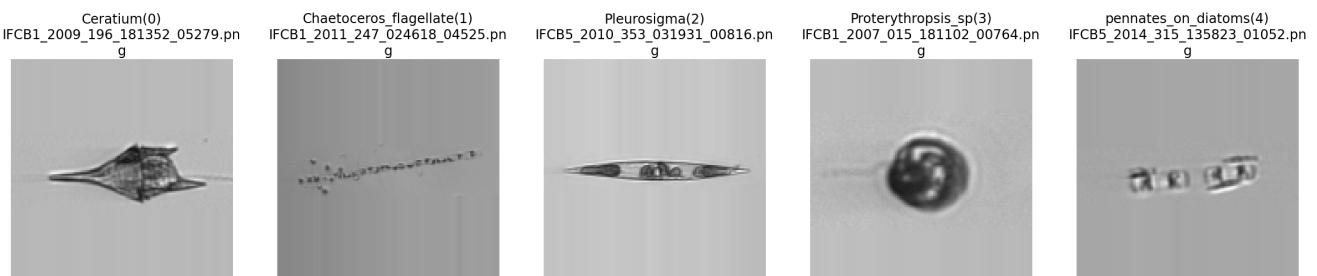
AUC Histogram - 6



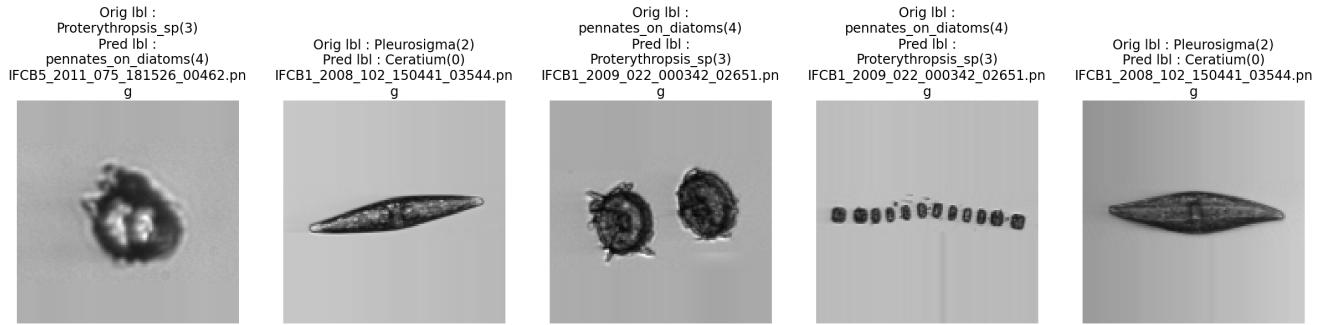
ROC Curves



Sample Images



Wrongly Classified Images



Super-Category 7

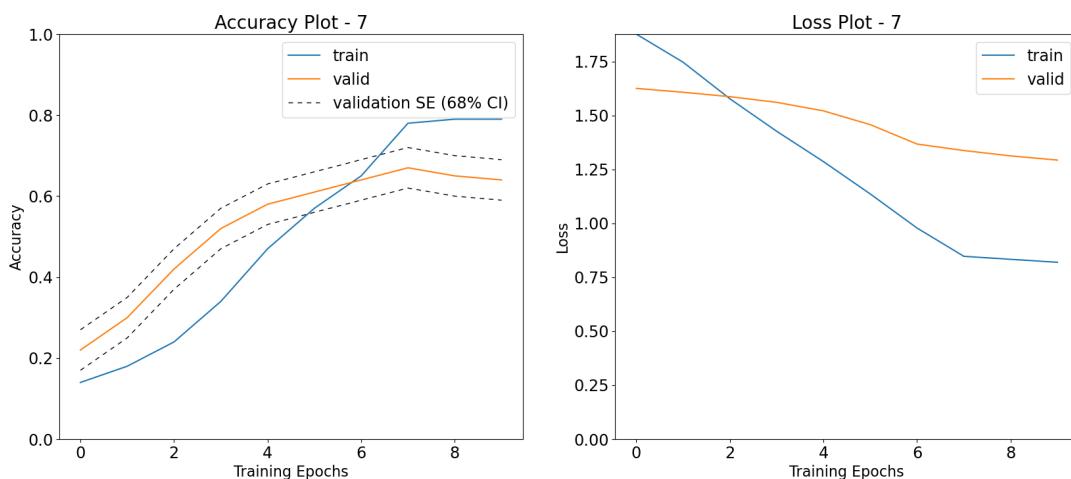
Statistics

Total Images	200
Train Images	100
Valid Images	100
Training Time	1m 4s
Best Train Accuracy	0.79
Best Valid Accuracy	0.67
AUC	0.86
2*AUC-1	0.72
Standard Error	0.05

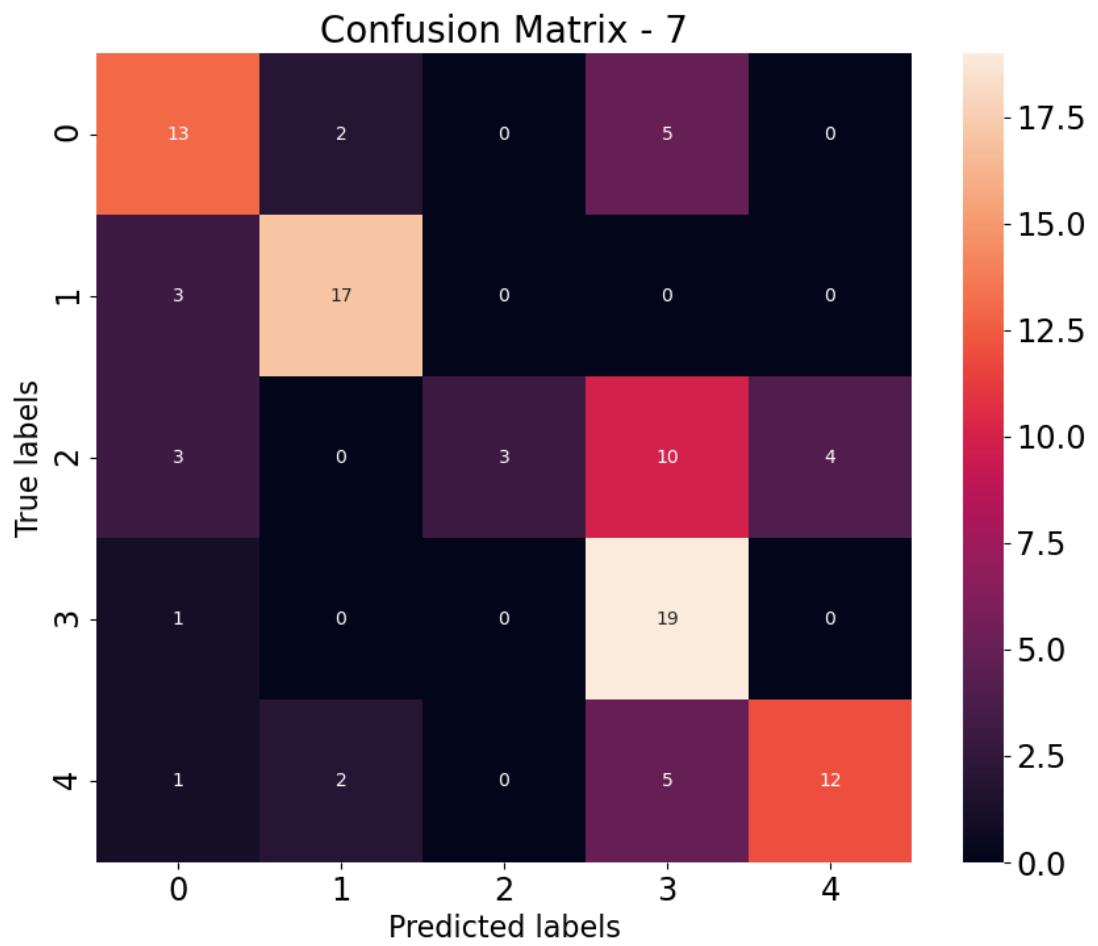
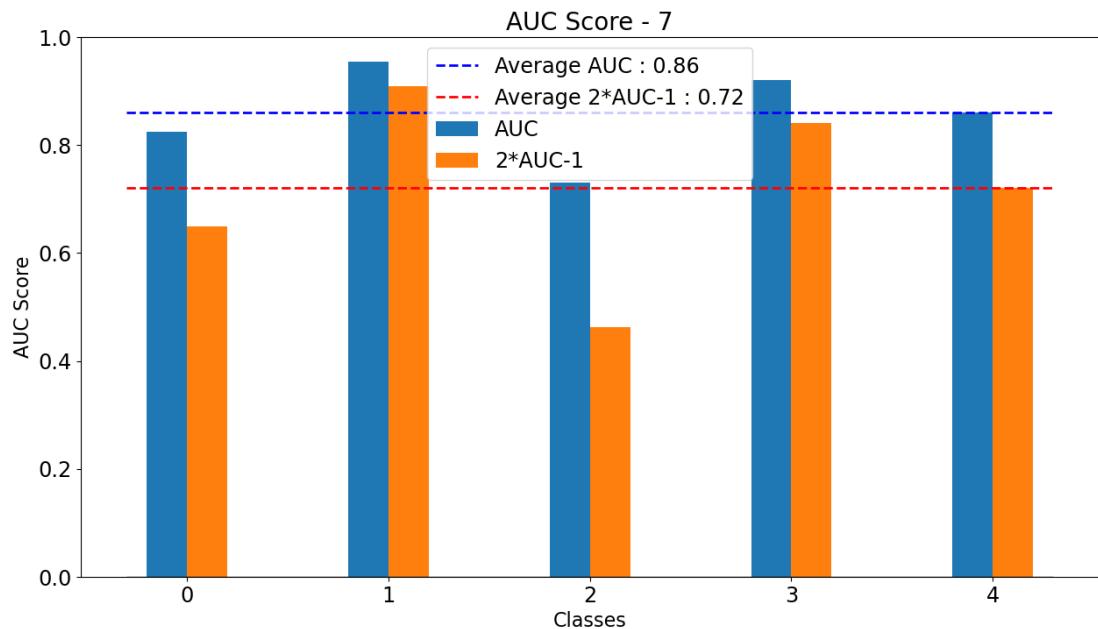
Categories

Category #	Category Name
0	Chaetoceros_other
1	Dactyliosolen
2	Gonyaulax
3	Pleuronema_sp
4	dino30

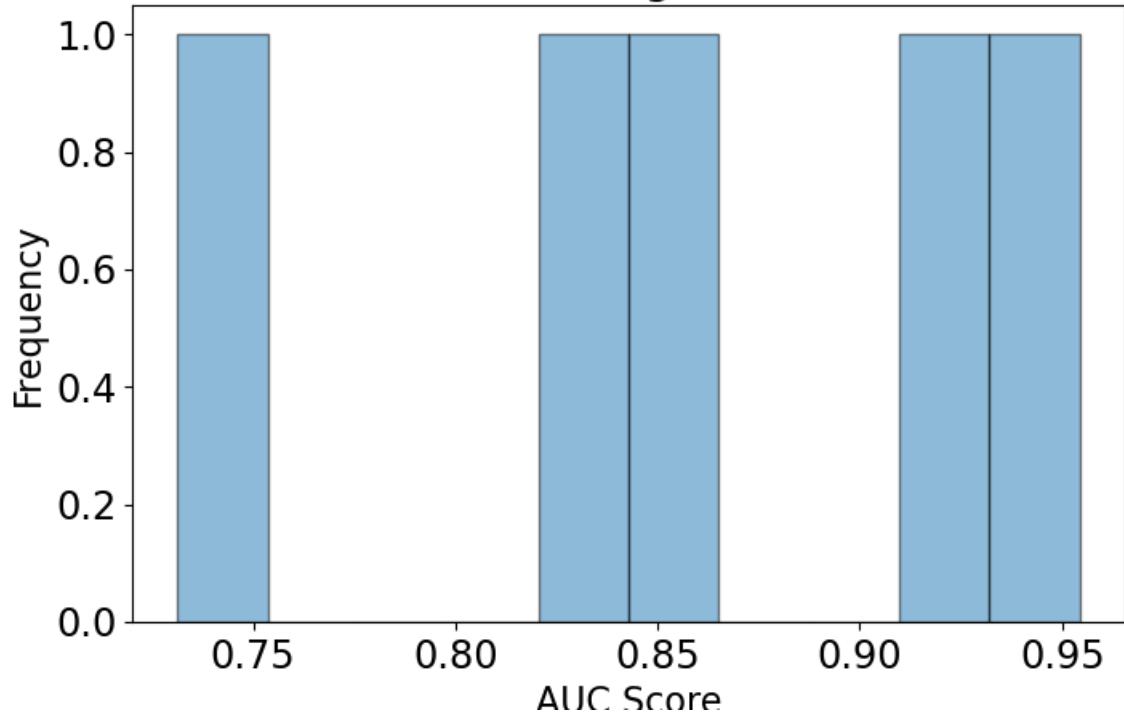
Accuracy Loss Plot



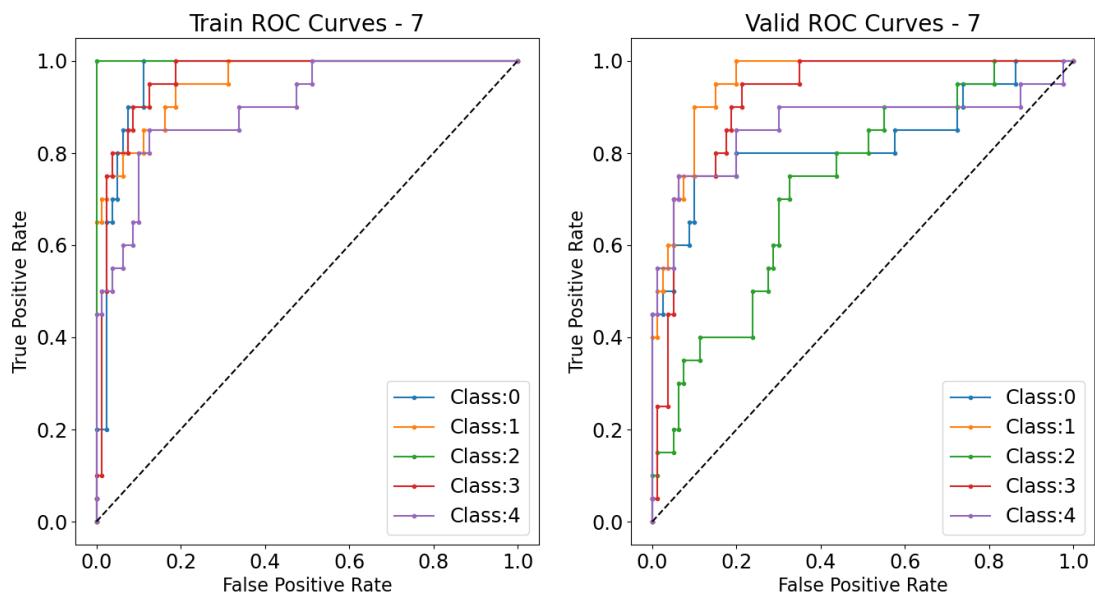
Confusion Matrix

**AUC****AUC Histogram**

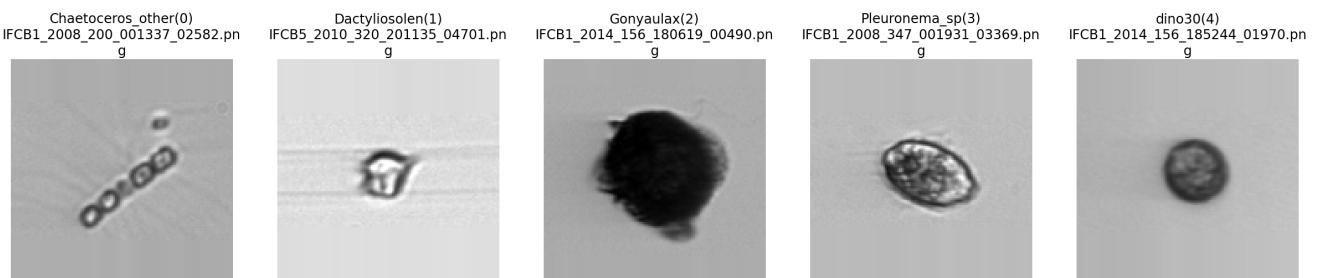
AUC Histogram - 7



ROC Curves

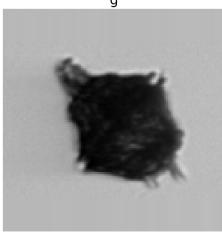


Sample Images

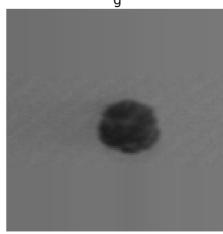


Wrongly Classified Images

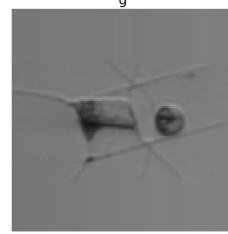
Orig lbl : Gonyaulax(2)
Pred lbl : dino30(4)
IFCB1_2009_001_001602_00837.pn
g



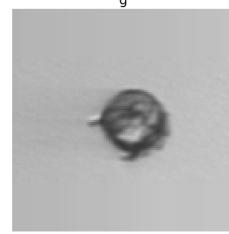
Orig lbl : dino30(4)
Pred lbl : Pleuronema_sp(3)
IFCB1_2007_024_213700_01863.pn
g



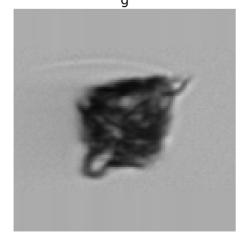
Orig lbl :
Chaetoceros_other(0)
Pred lbl : Pleuronema_sp(3)
IFCB1_2007_024_213700_01863.pn
g



Orig lbl : dino30(4)
Pred lbl : Dactyliosolen(1)
IFCB1_2008_347_001931_02584.pn
g



Orig lbl : Gonyaulax(2)
Pred lbl : Pleuronema_sp(3)
IFCB1_2007_024_213700_01863.pn
g



Super-Category 8

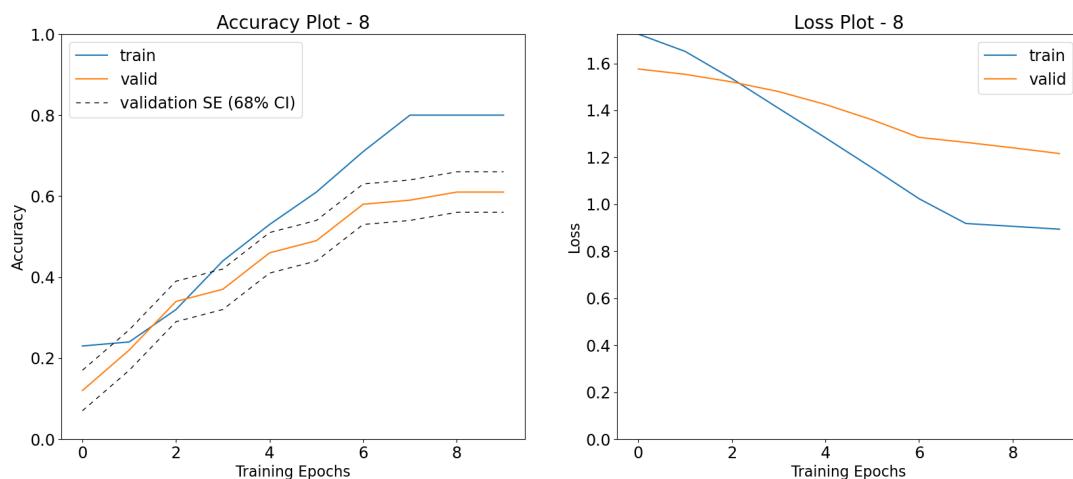
Statistics

Total Images	200
Train Images	100
Valid Images	100
Training Time	1m 3s
Best Train Accuracy	0.8
Best Valid Accuracy	0.61
AUC	0.88
2*AUC-1	0.77
Standard Error	0.05

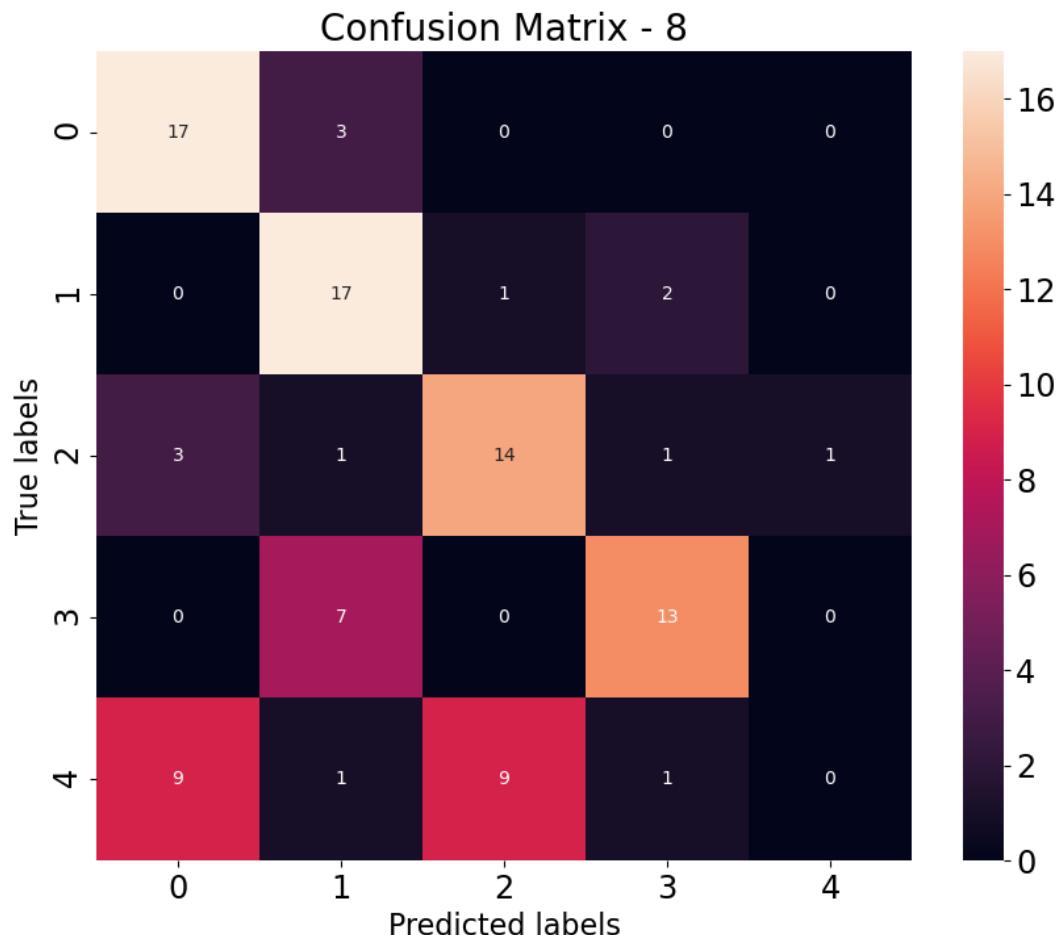
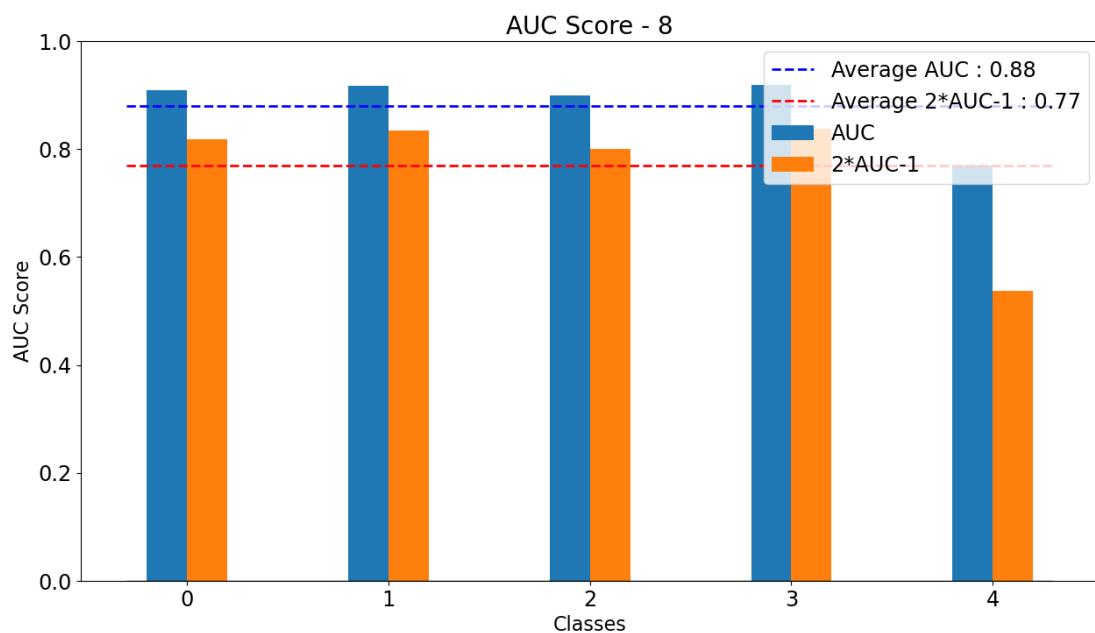
Categories

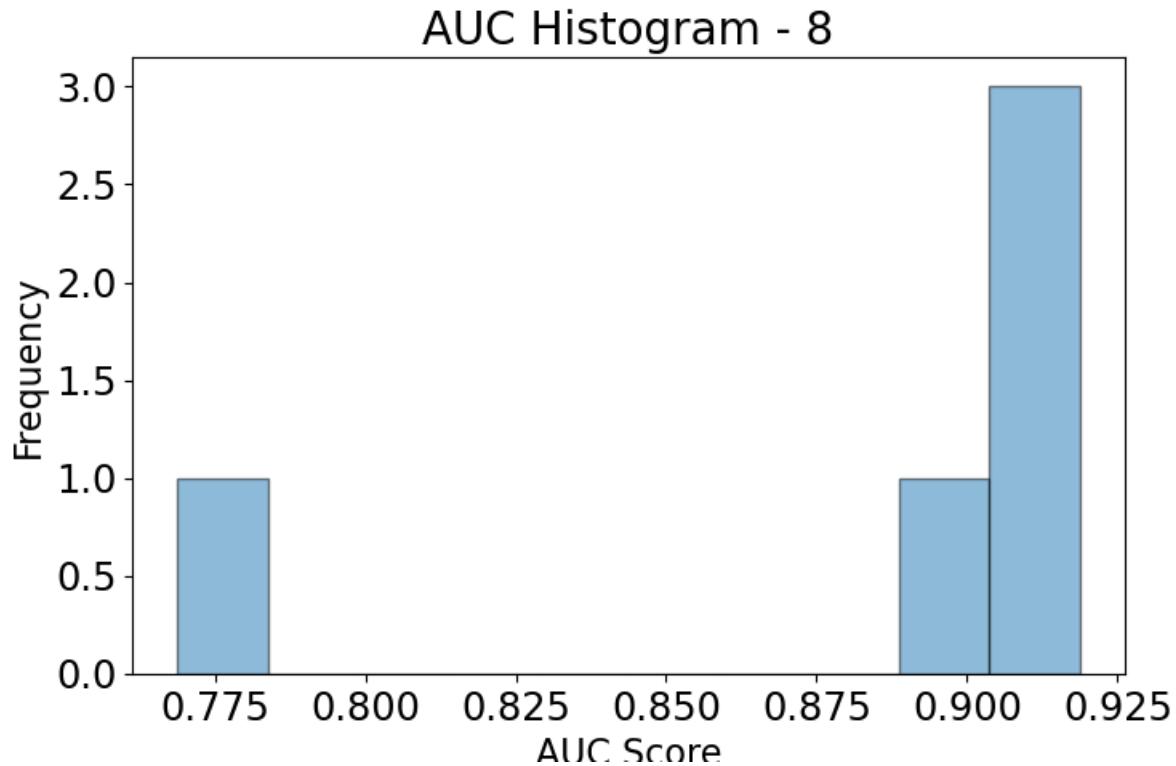
Category #	Category Name
0	Corethron
1	Coscinodiscus
2	Phaeocystis
3	Strombidium_conicum
4	diatom_flagellate

Accuracy Loss Plot

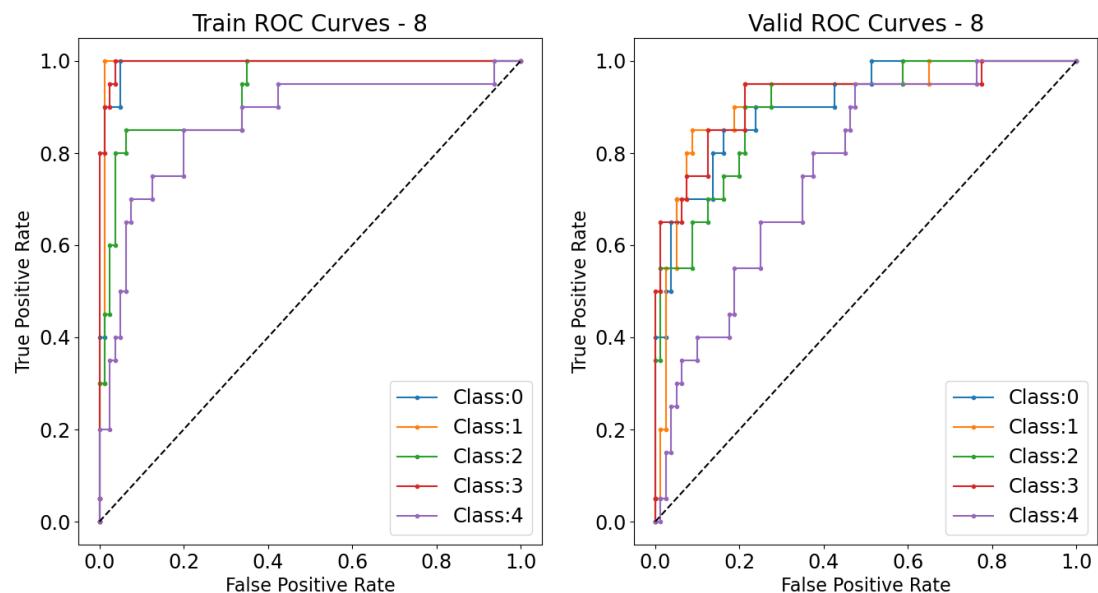


Confusion Matrix

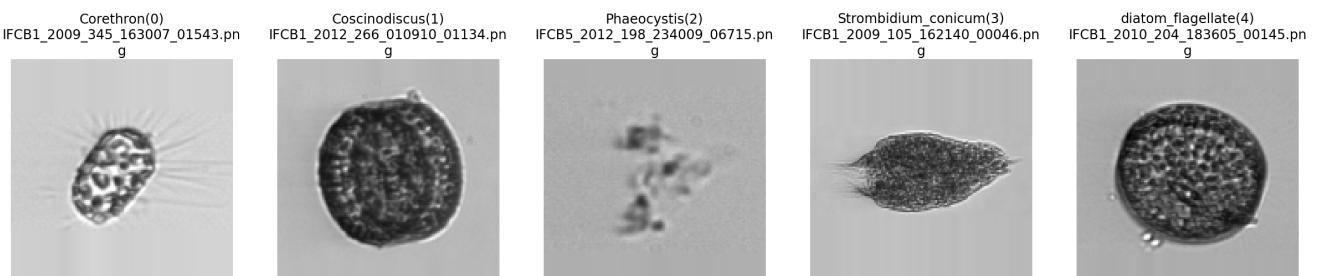
**AUC****AUC Histogram**



ROC Curves

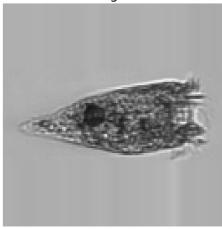


Sample Images

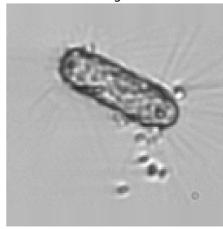


Wrongly Classified Images

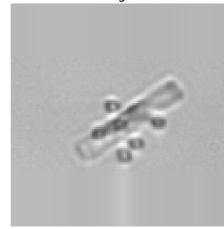
Orig lbl :
Strombidium conicum(3)
Pred lbl : *Coscinodiscus*(1)
IFCB5_2011_105_170108_00874.pn
g



Orig lbl :
diatom_flagellate(4)
Pred lbl : *Corethron*(0)
IFCB1_2008_236_013645_02521.pn
g



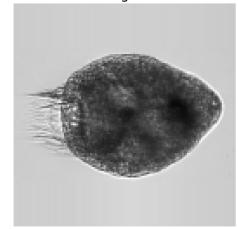
Orig lbl :
diatom_flagellate(4)
Pred lbl : *Coscinodiscus*(1)
IFCB5_2011_105_170108_00874.pn
g



Orig lbl :
diatom_flagellate(4)
Pred lbl : *Phaeocystis*(2)
IFCB1_2007_318_184658_04603.pn
g



Orig lbl :
Strombidium conicum(3)
Pred lbl : *Coscinodiscus*(1)
IFCB5_2011_105_170108_00874.pn
g



Super-Category 9

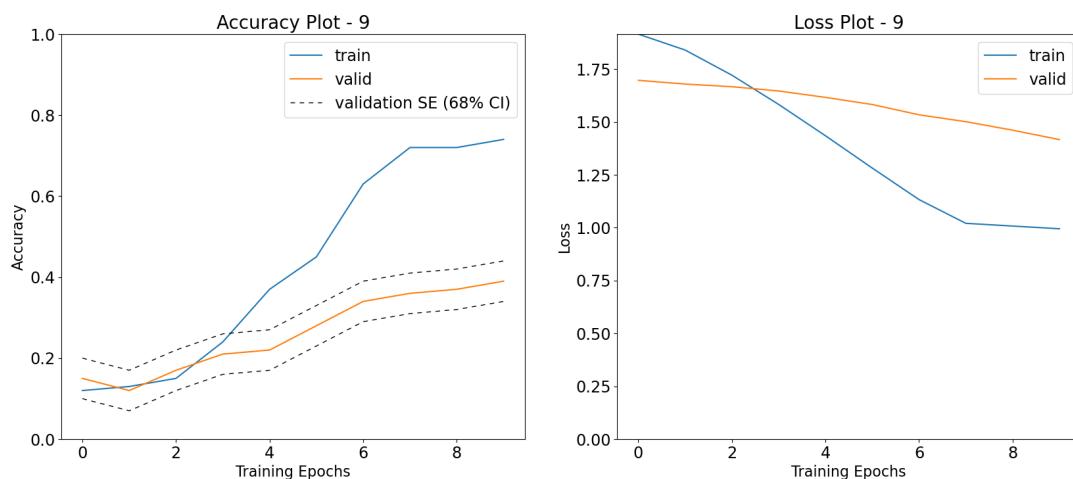
Statistics

Total Images	200
Train Images	100
Valid Images	100
Training Time	1m 2s
Best Train Accuracy	0.74
Best Valid Accuracy	0.39
AUC	0.81
2*AUC-1	0.62
Standard Error	0.05

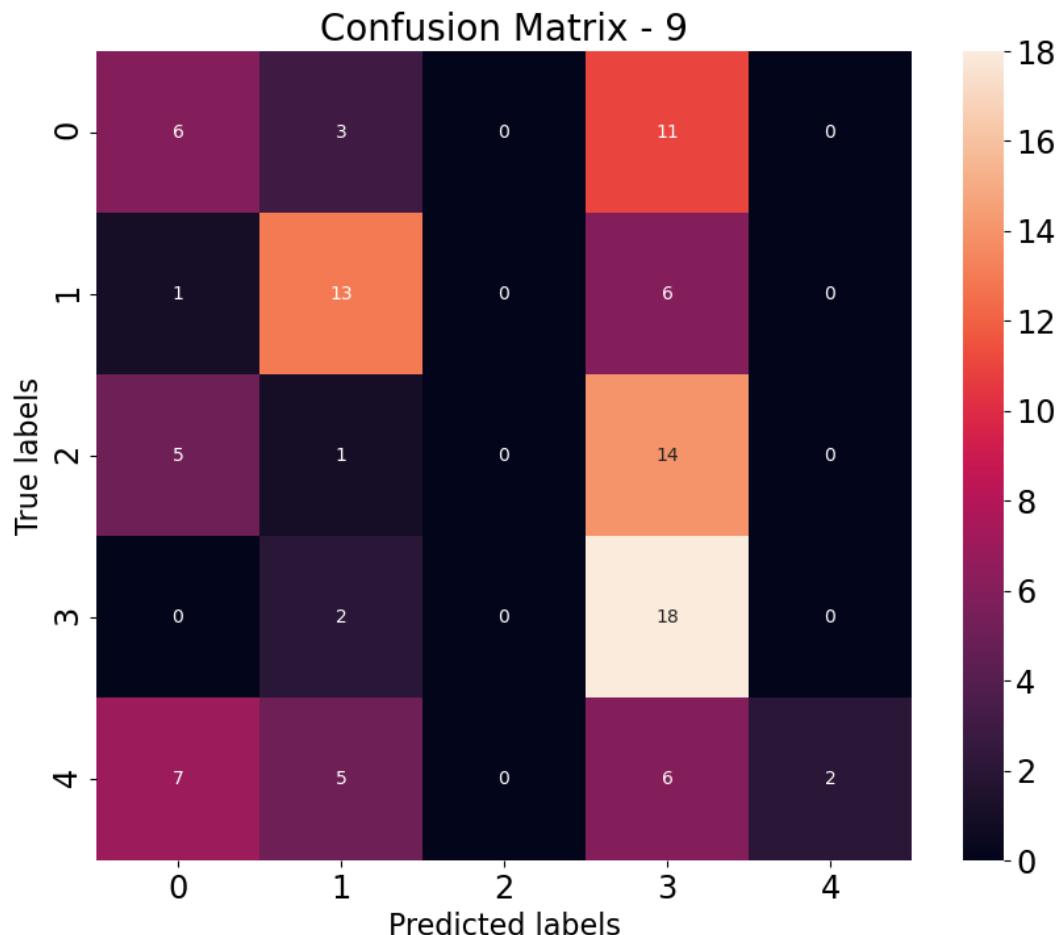
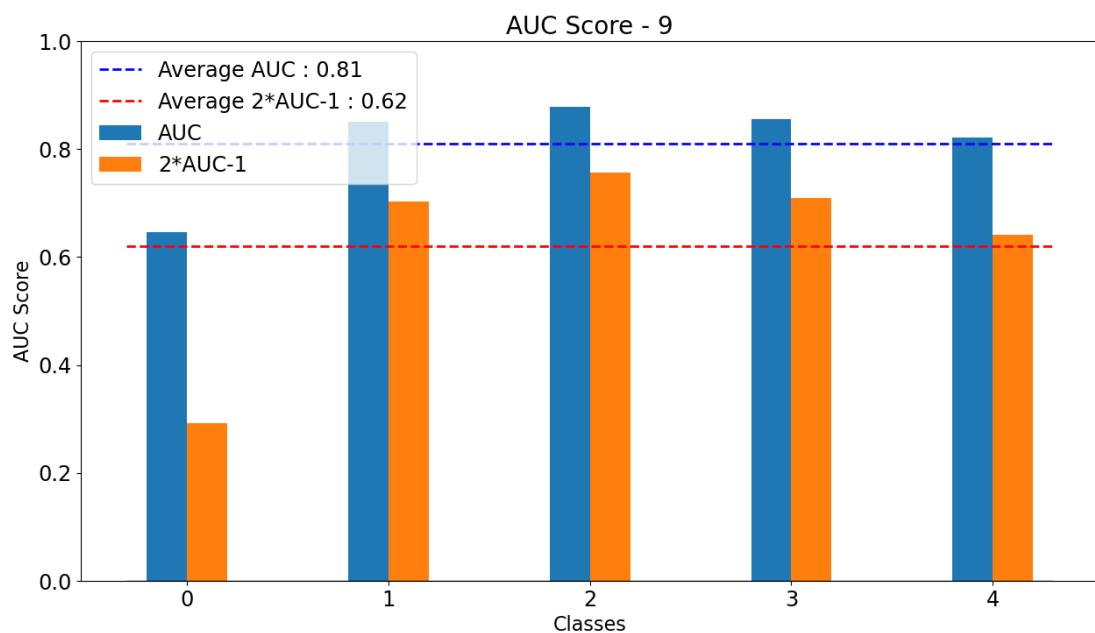
Categories

Category #	Category Name
0	Ciliate_mix
1	Emiliania_huxleyi
2	Leegaardiella_ovalis
3	Licmophora
4	Paralia

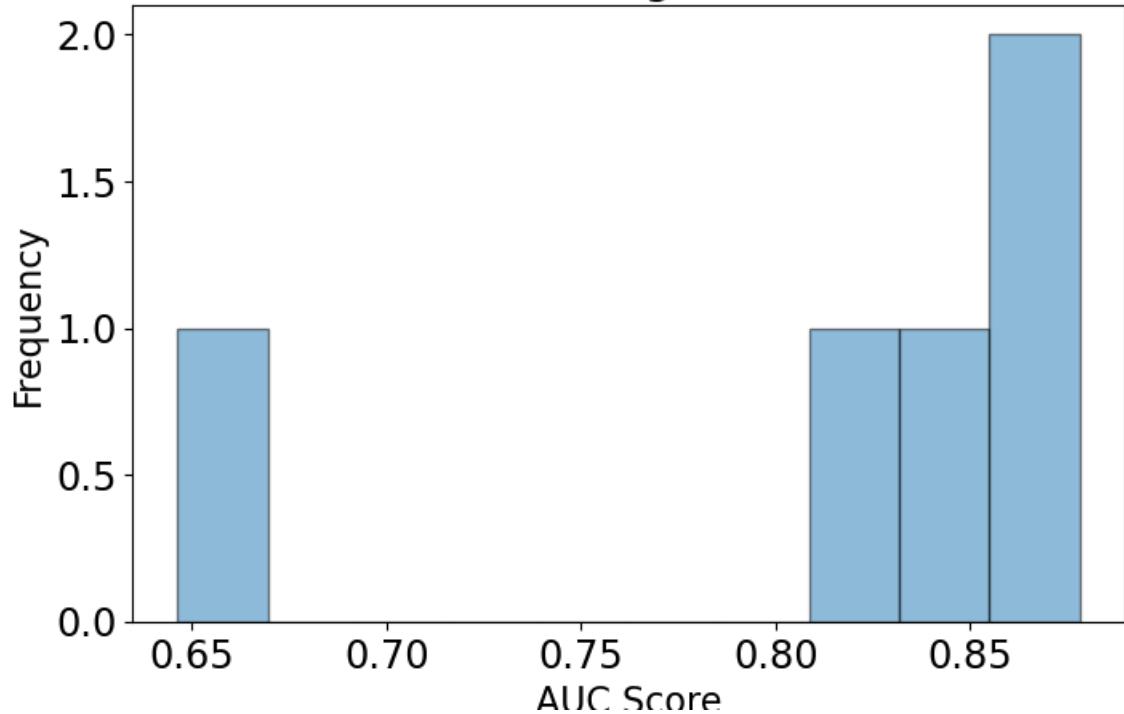
Accuracy Loss Plot



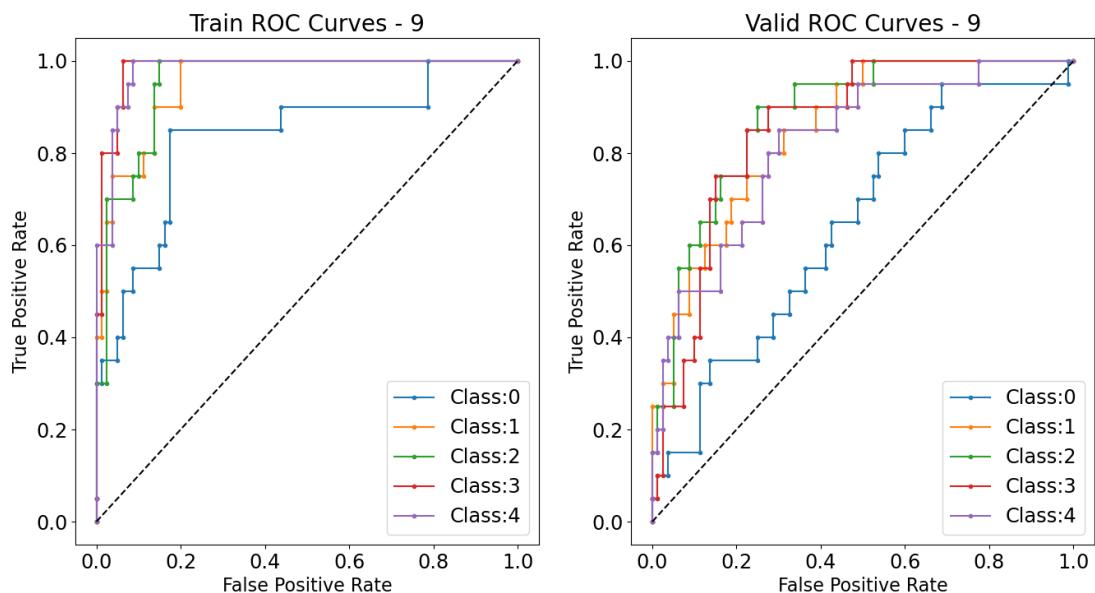
Confusion Matrix

**AUC****AUC Histogram**

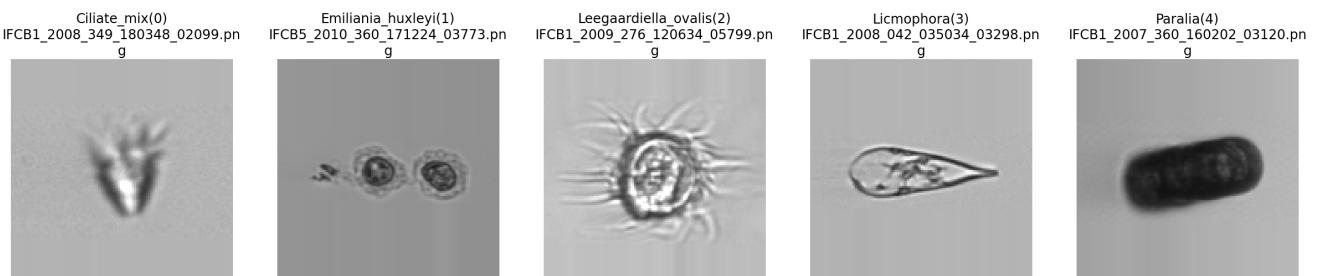
AUC Histogram - 9



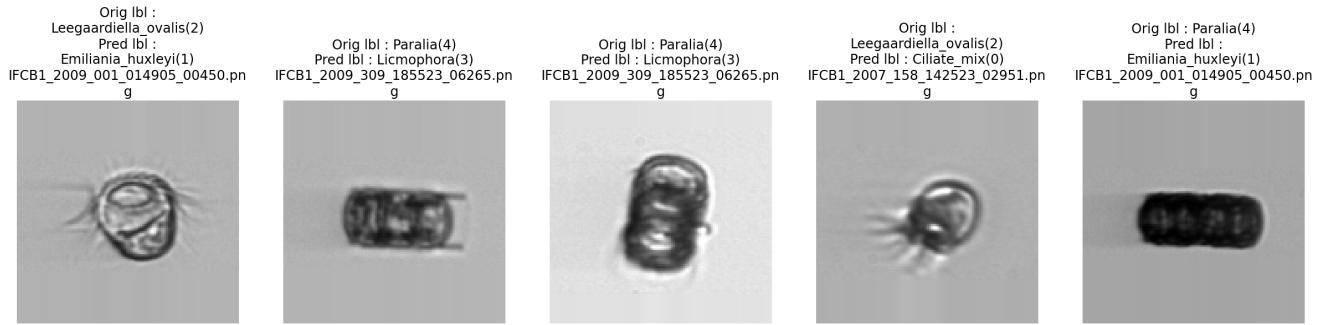
ROC Curves



Sample Images



Wrongly Classified Images



Super-Category 10

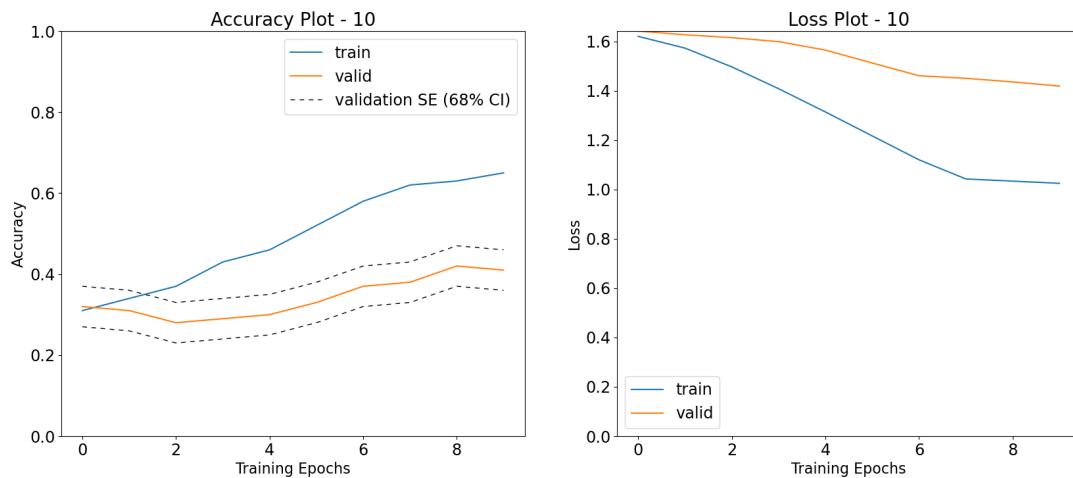
Statistics

Total Images	200
Train Images	100
Valid Images	100
Training Time	1m 2s
Best Train Accuracy	0.65
Best Valid Accuracy	0.42
AUC	0.75
2*AUC-1	0.5
Standard Error	0.05

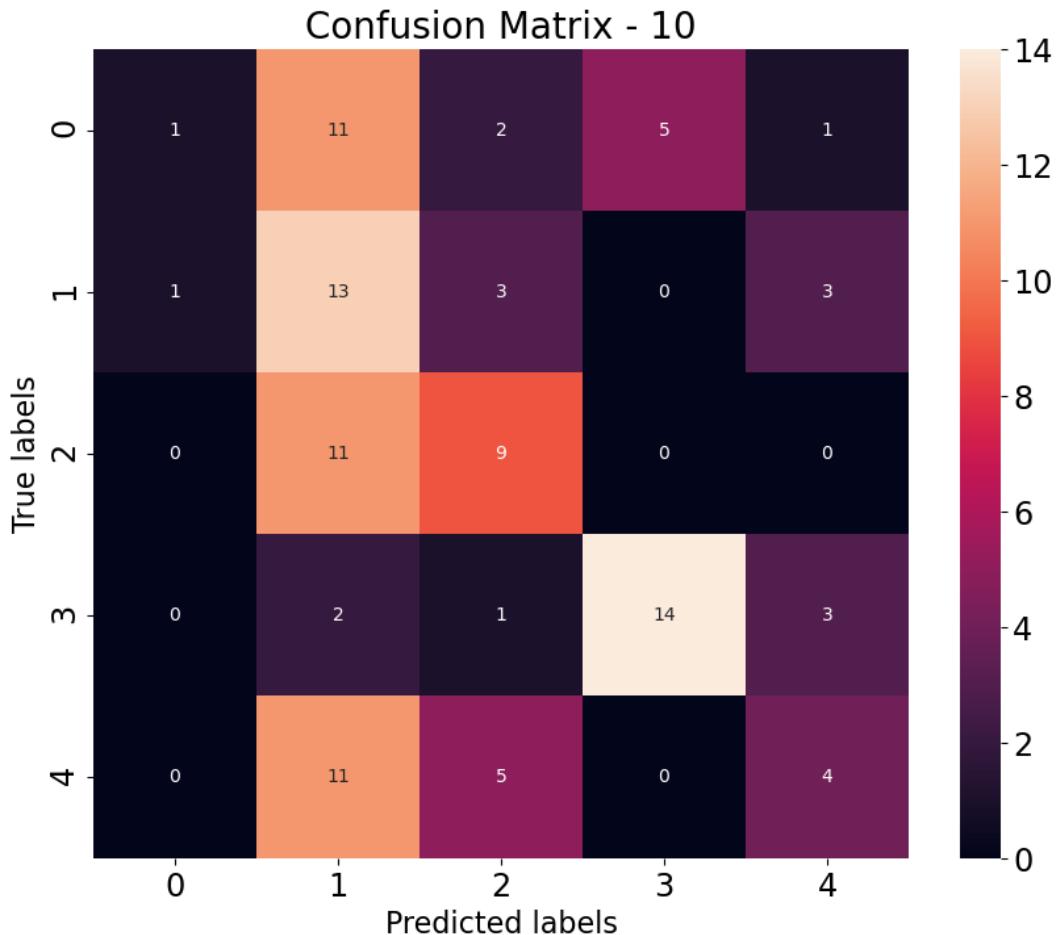
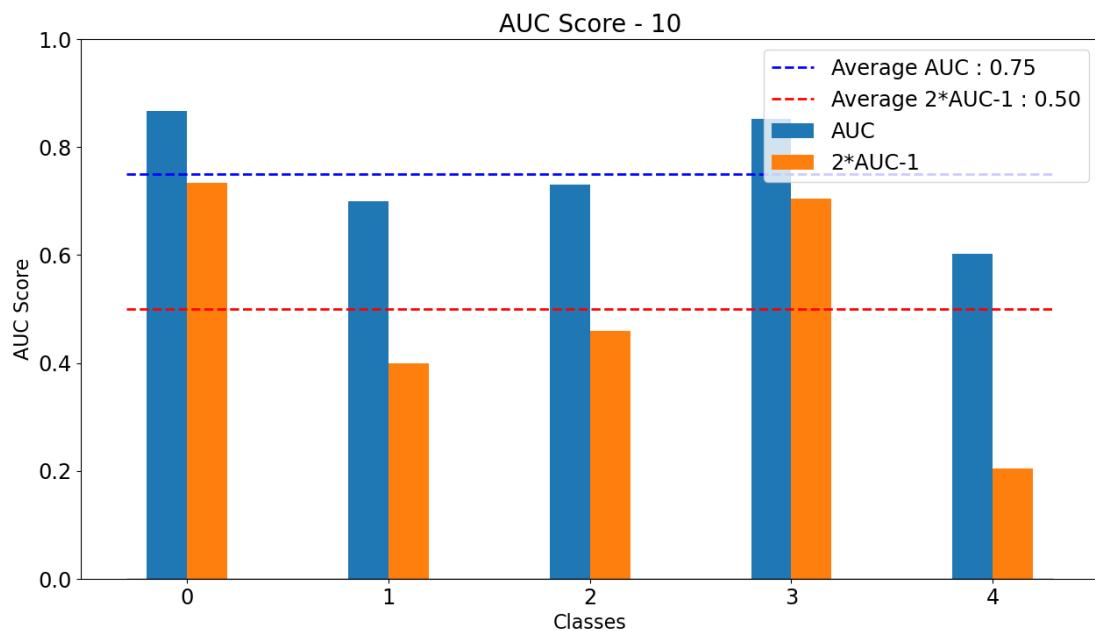
Categories

Category #	Category Name
0	Amphidinium_sp
1	Cerataulina_flagellate
2	Leptocylindrus
3	Tintinnid
4	other_interaction

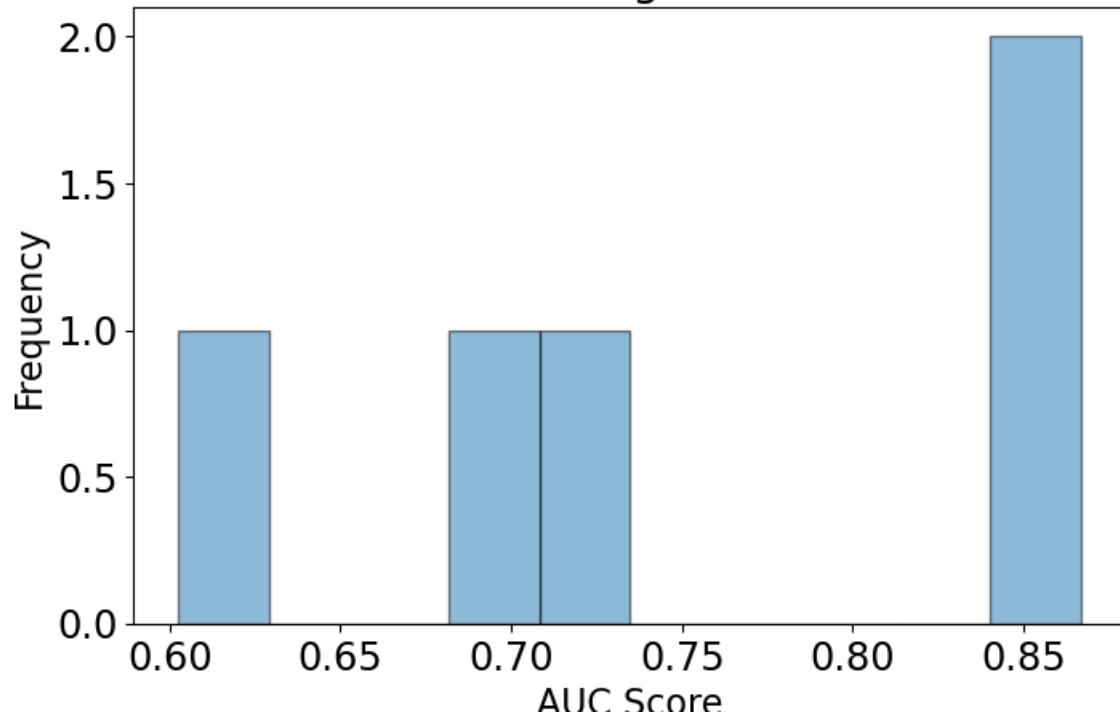
Accuracy Loss Plot



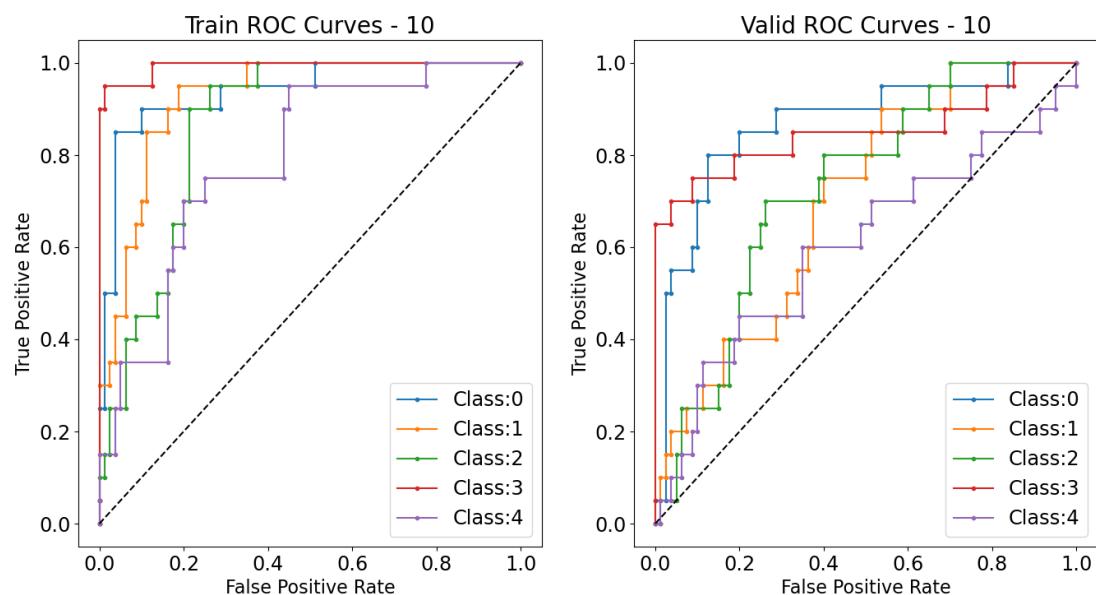
Confusion Matrix

**AUC****AUC Histogram**

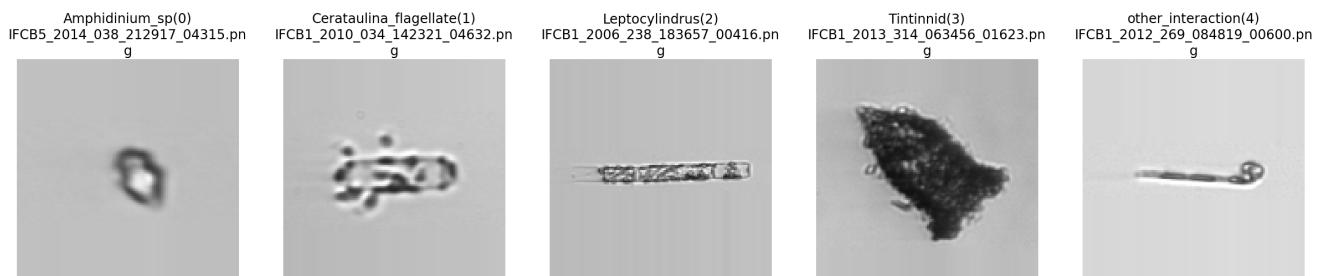
AUC Histogram - 10



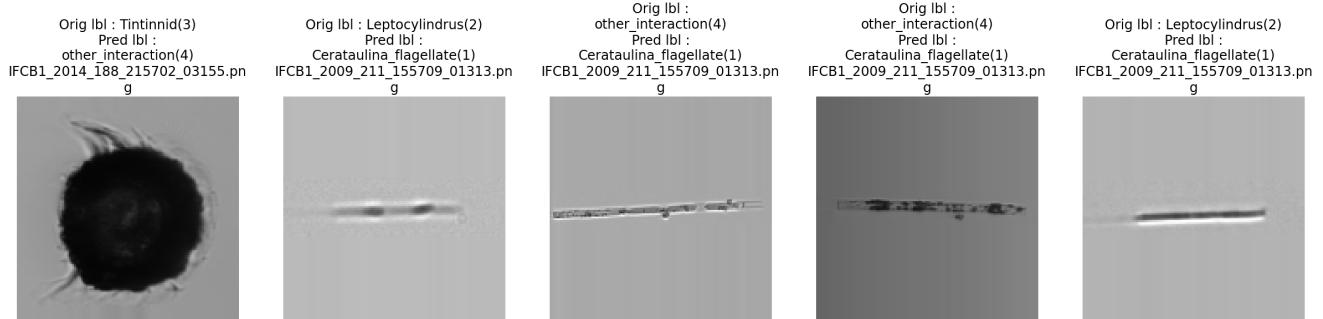
ROC Curves



Sample Images



Wrongly Classified Images



Super-Category 11

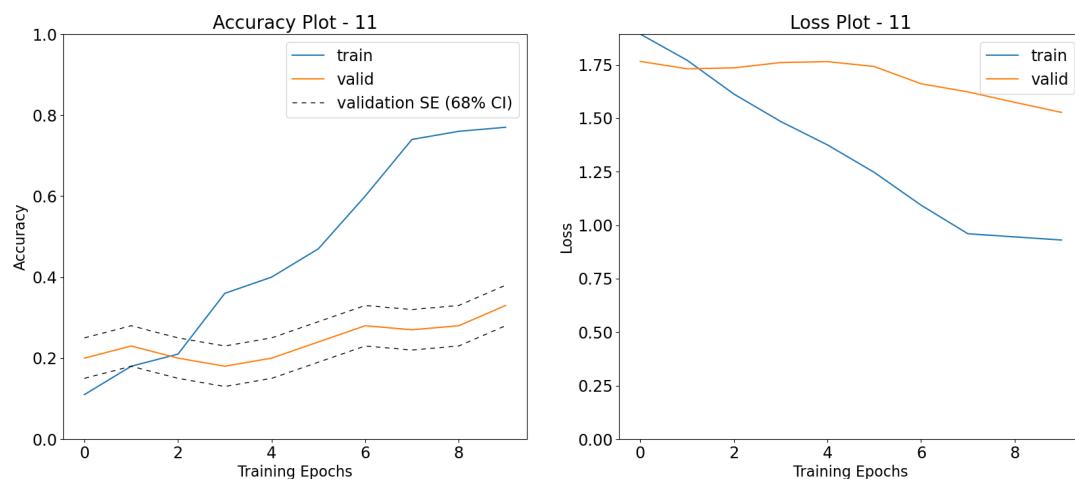
Statistics

Total Images	200
Train Images	100
Valid Images	100
Training Time	1m 2s
Best Train Accuracy	0.77
Best Valid Accuracy	0.33
AUC	0.67
2*AUC-1	0.34
Standard Error	0.05

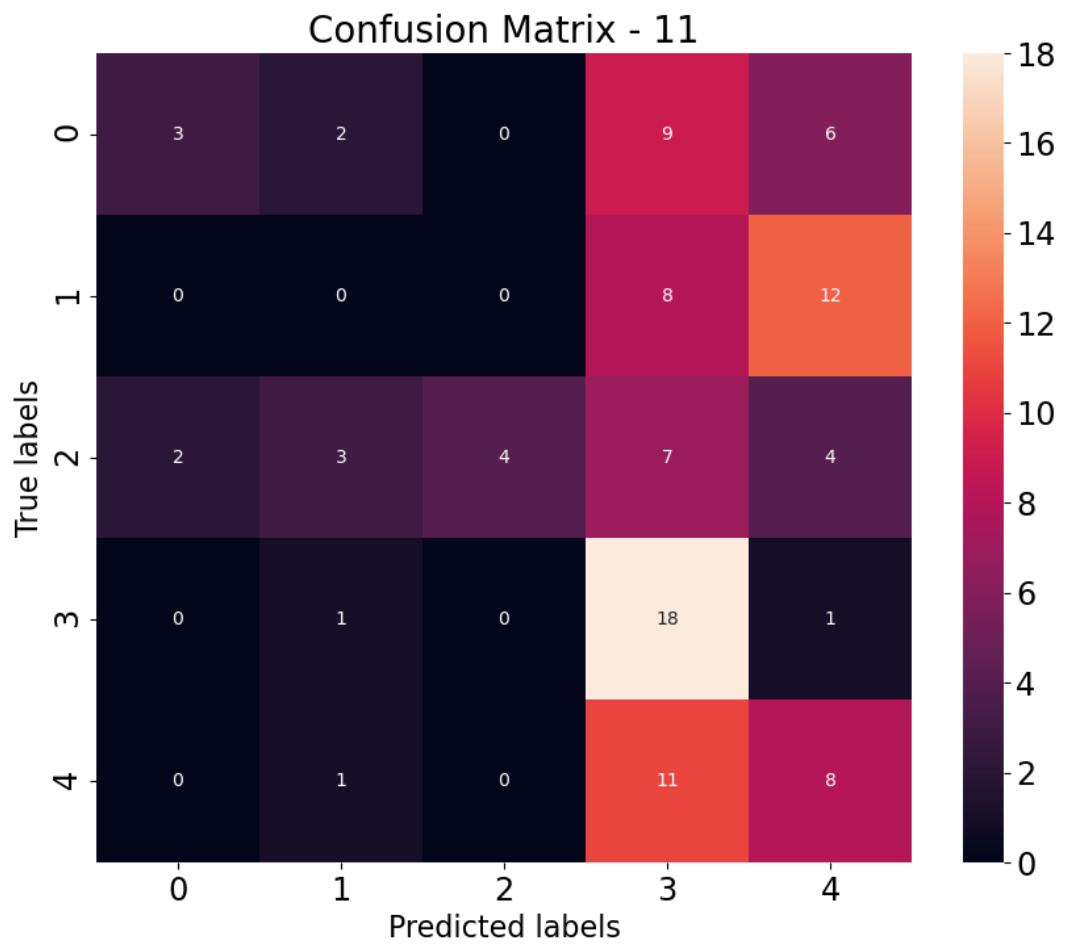
Categories

Category #	Category Name
0	Delphineis
1	G_delicatula_external_parasite
2	Thalassiosira_dirty
3	Tontonia_appendiculariformis
4	mix_elongated

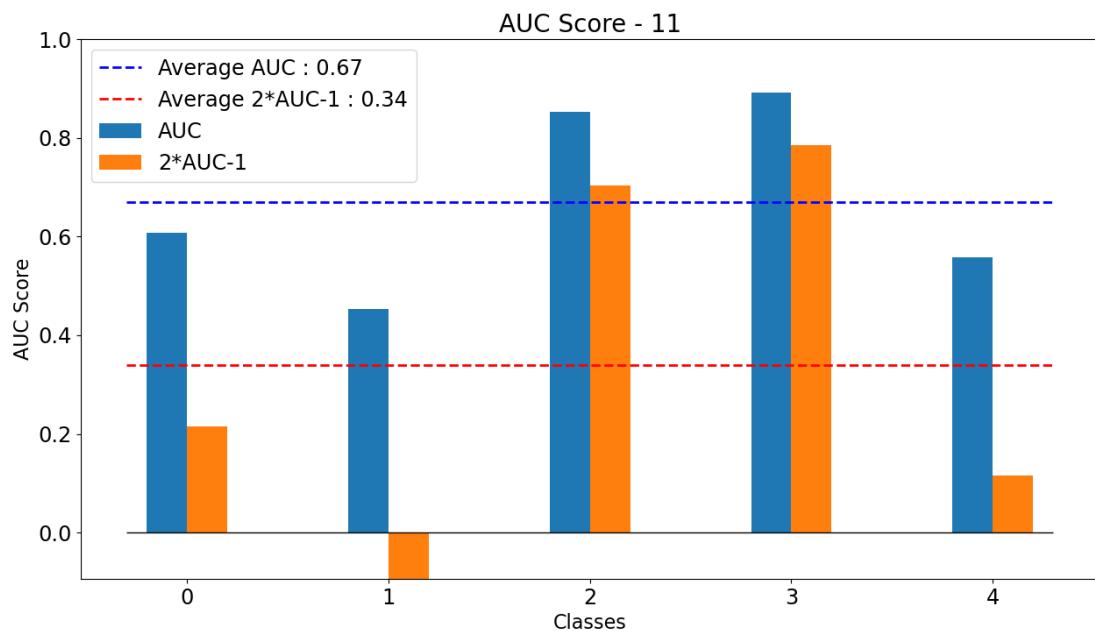
Accuracy Loss Plot



Confusion Matrix

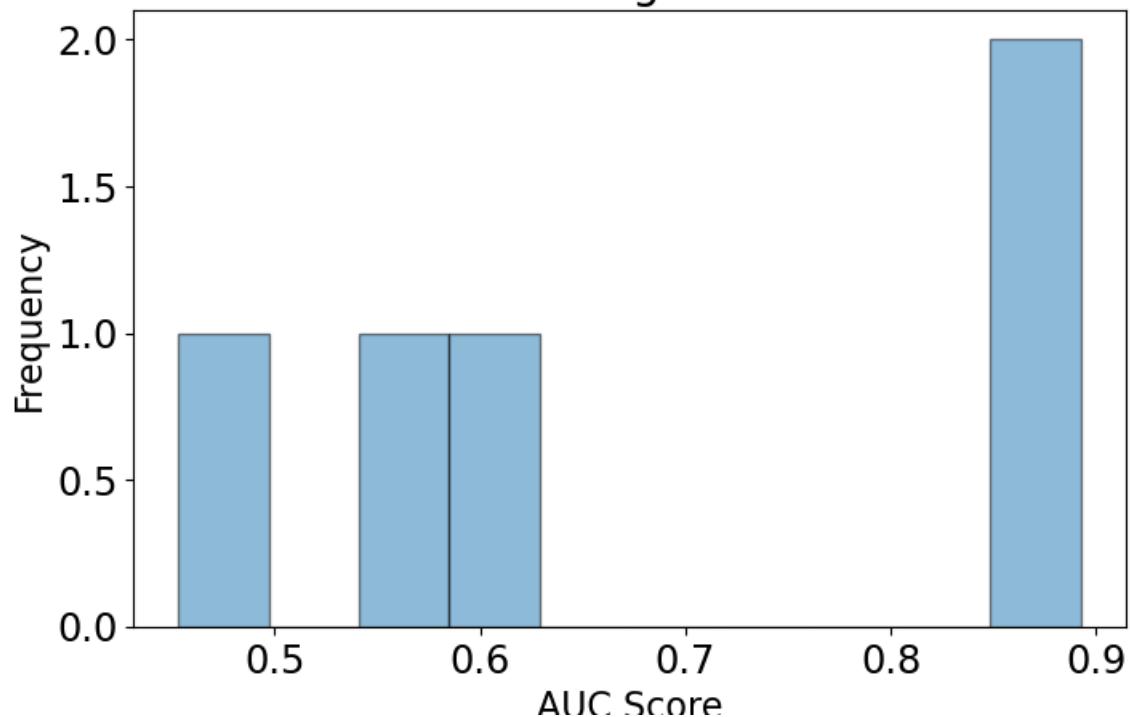


AUC

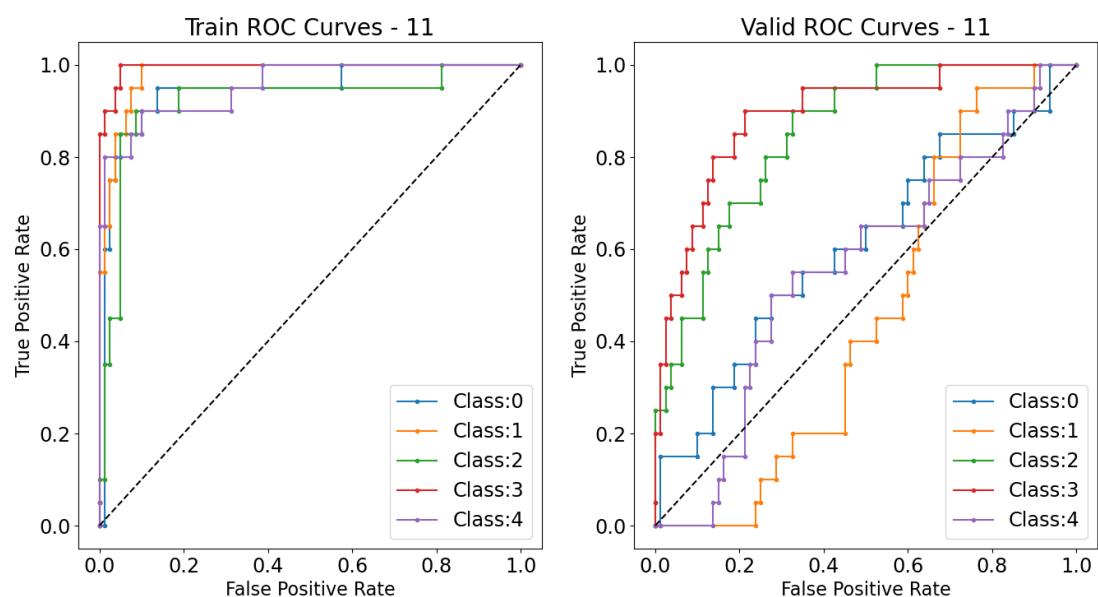


AUC Histogram

AUC Histogram - 11



ROC Curves

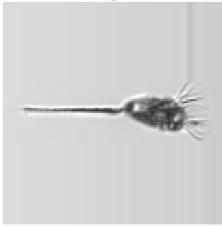


Sample Images



Wrongly Classified Images

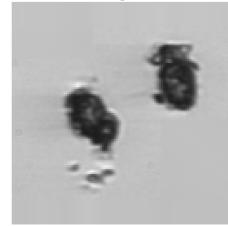
Orig lbl : *Tontonia_appendicul
ariformis(3)*
Pred lbl : *mix_elongated(4)*
IFCB1_2006_354_193915_01449.pn
g



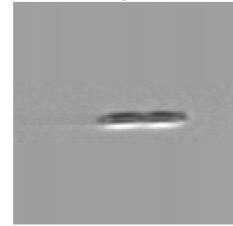
Orig lbl : *mix_elongated(4)*
Pred lbl : *Tontonia_appendicul
ariformis(3)*
IFCB5_2013_225_163510_08344.pn
g



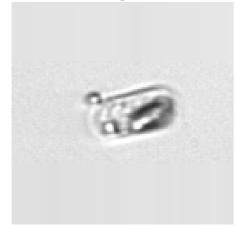
Orig lbl :
Thalassiosira_dirty(2)
Pred lbl : *mix_elongated(4)*
IFCB1_2006_354_193915_01449.pn
g



Orig lbl : *mix_elongated(4)*
Pred lbl : *Tontonia_appendicul
ariformis(3)*
IFCB5_2013_225_163510_08344.pn
g



Orig lbl : *G_delicatula_extern
al_parasite(1)*
Pred lbl : *Tontonia_appendicul
ariformis(3)*
IFCB5_2013_225_163510_08344.pn
g



Super-Category 12

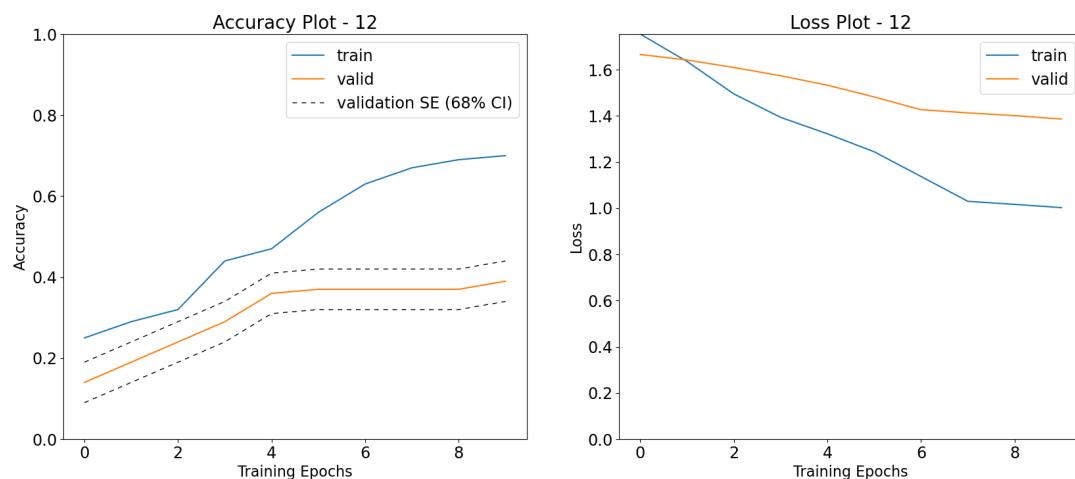
Statistics

Total Images	200
Train Images	100
Valid Images	100
Training Time	1m 3s
Best Train Accuracy	0.7
Best Valid Accuracy	0.39
AUC	0.77
2*AUC-1	0.54
Standard Error	0.05

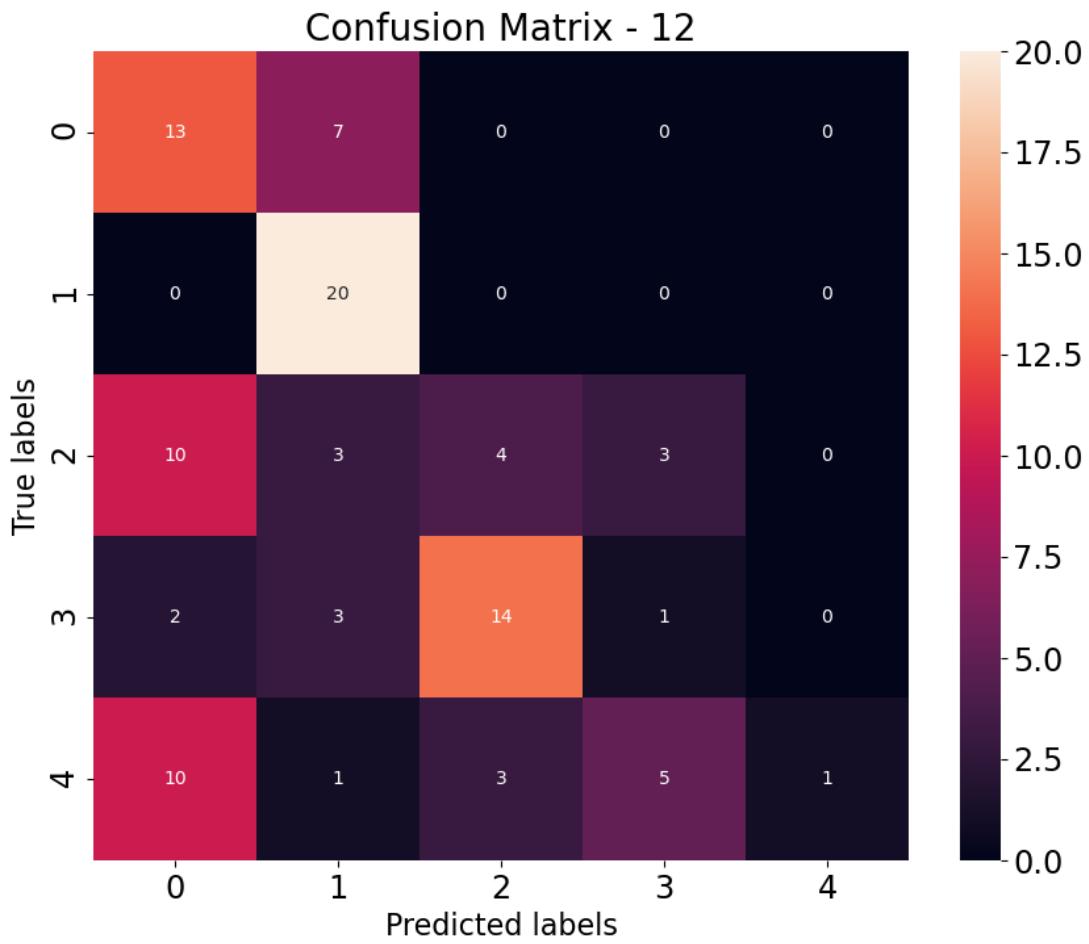
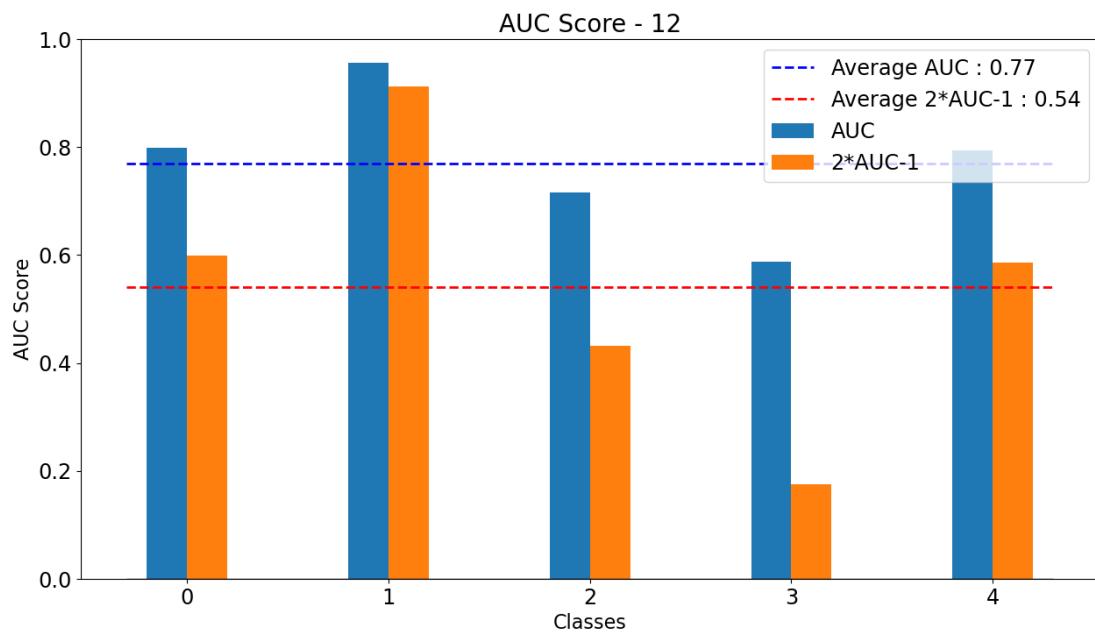
Categories

Category #	Category Name
0	Chaetoceros_pennate
1	Chrysochromulina
2	Strombidium_morphotype1
3	Strombidium_wulffi
4	zooplankton

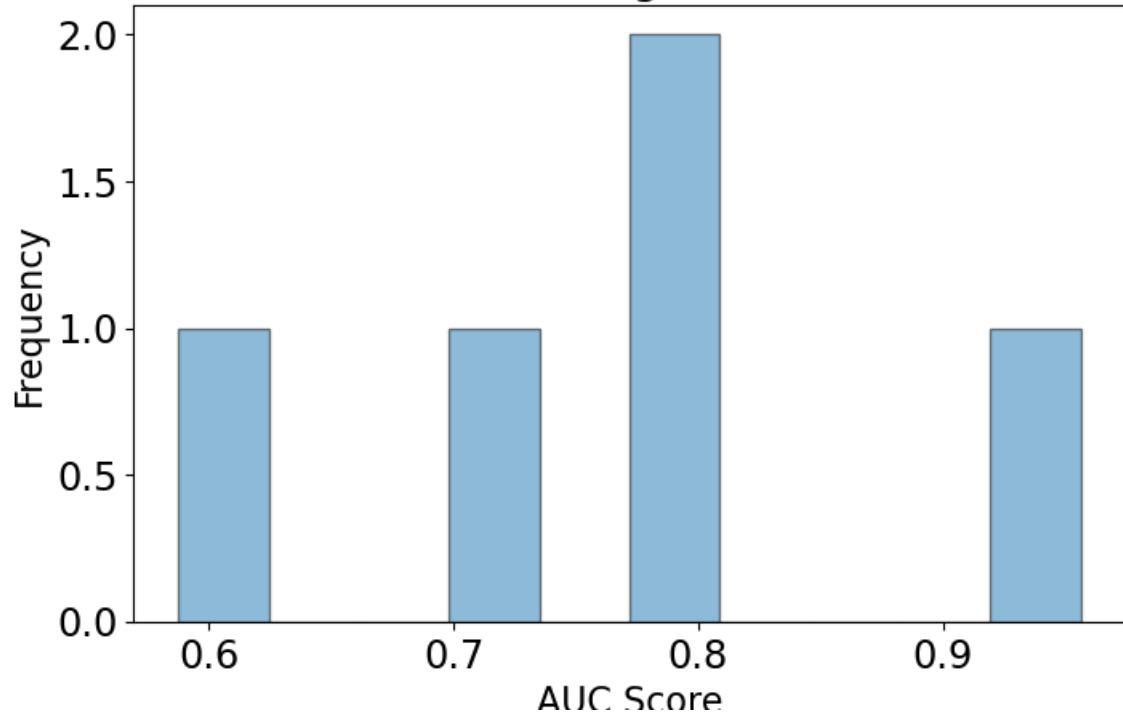
Accuracy Loss Plot



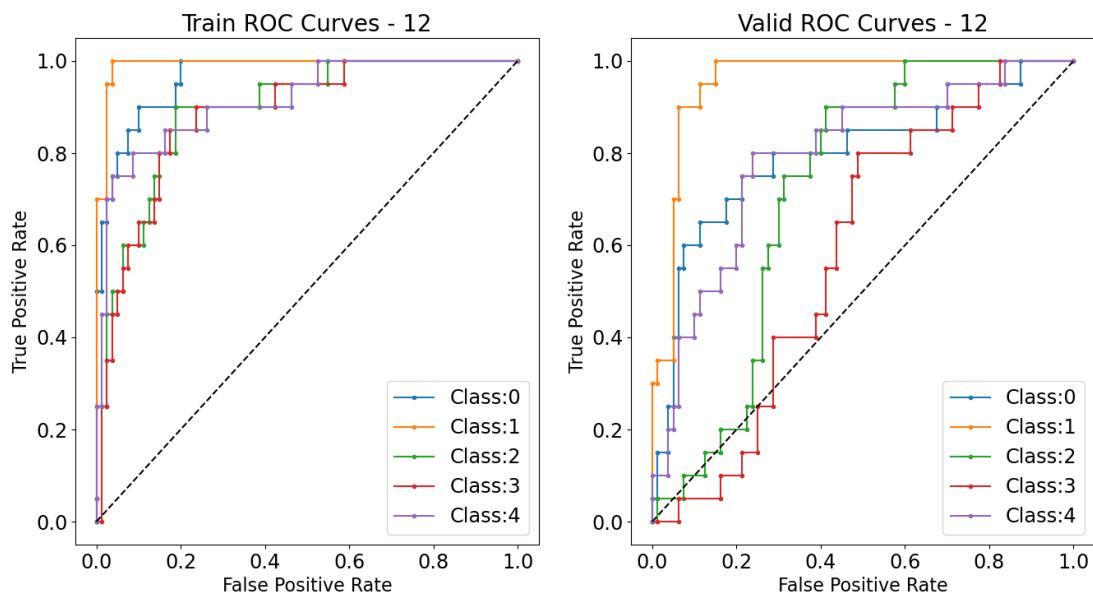
Confusion Matrix

**AUC****AUC Histogram**

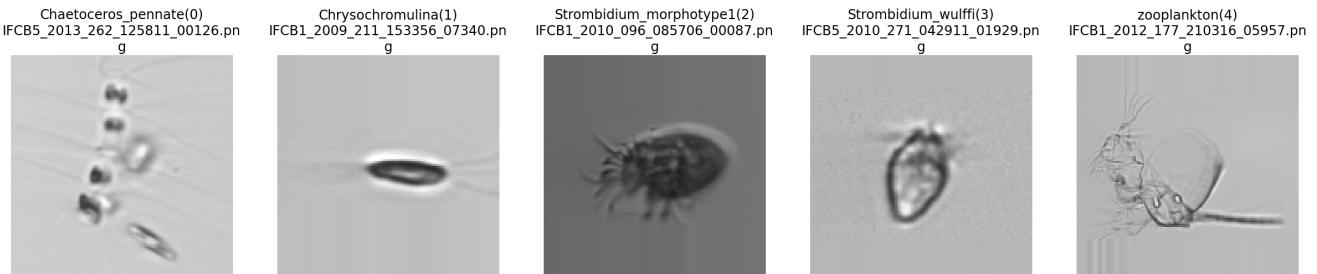
AUC Histogram - 12



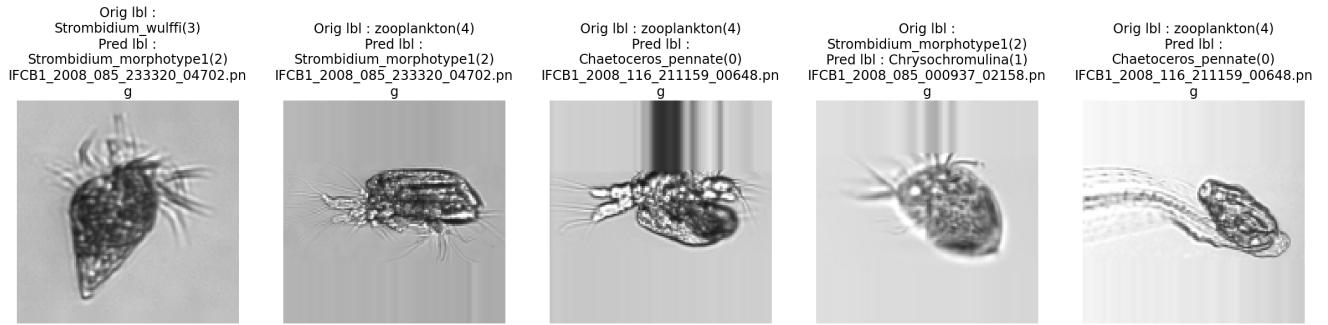
ROC Curves



Sample Images



Wrongly Classified Images



Super-Category 13

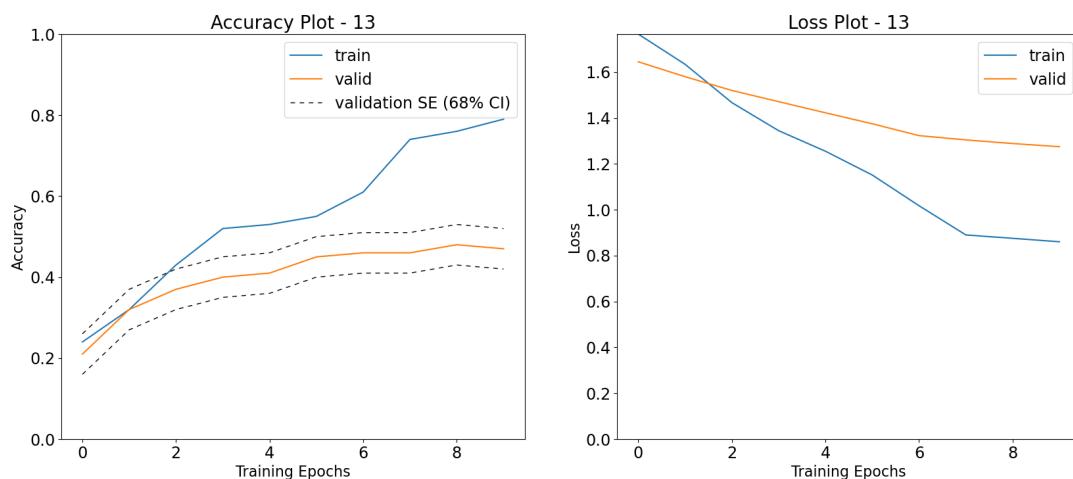
Statistics

Total Images	200
Train Images	100
Valid Images	100
Training Time	1m 2s
Best Train Accuracy	0.79
Best Valid Accuracy	0.48
AUC	0.88
2*AUC-1	0.76
Standard Error	0.05

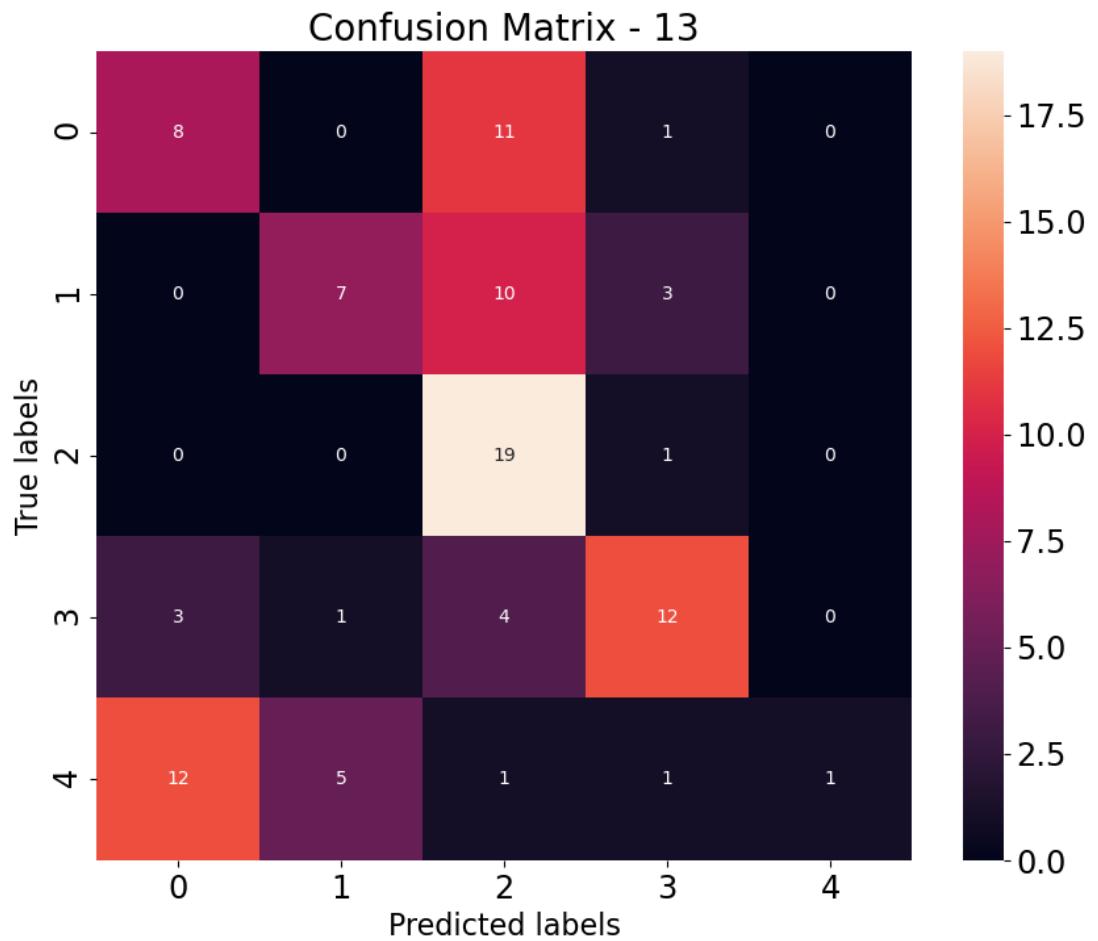
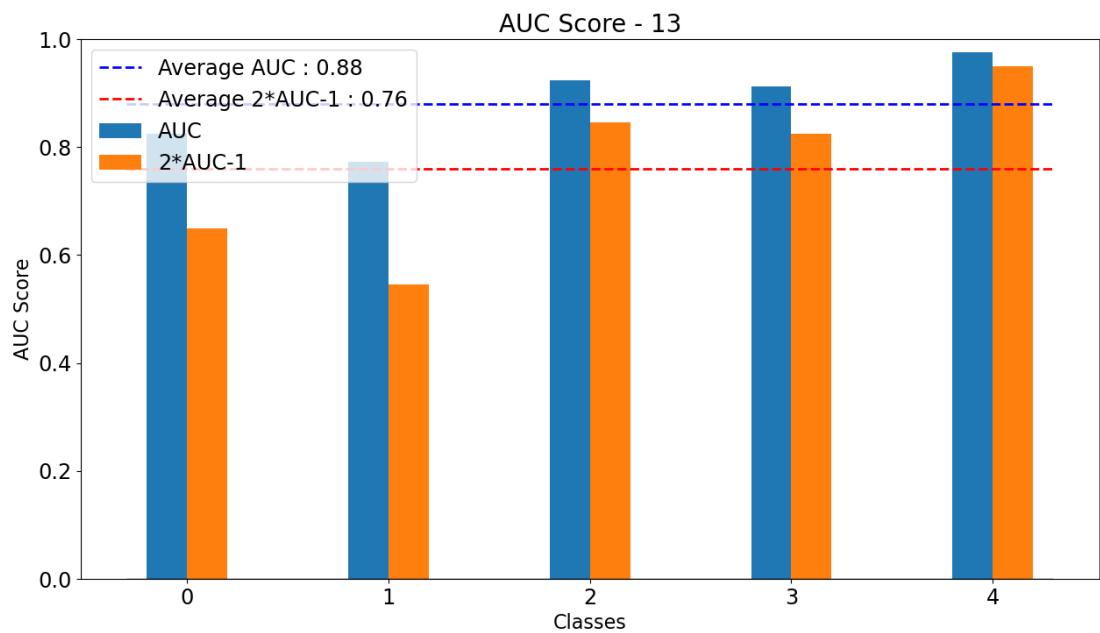
Categories

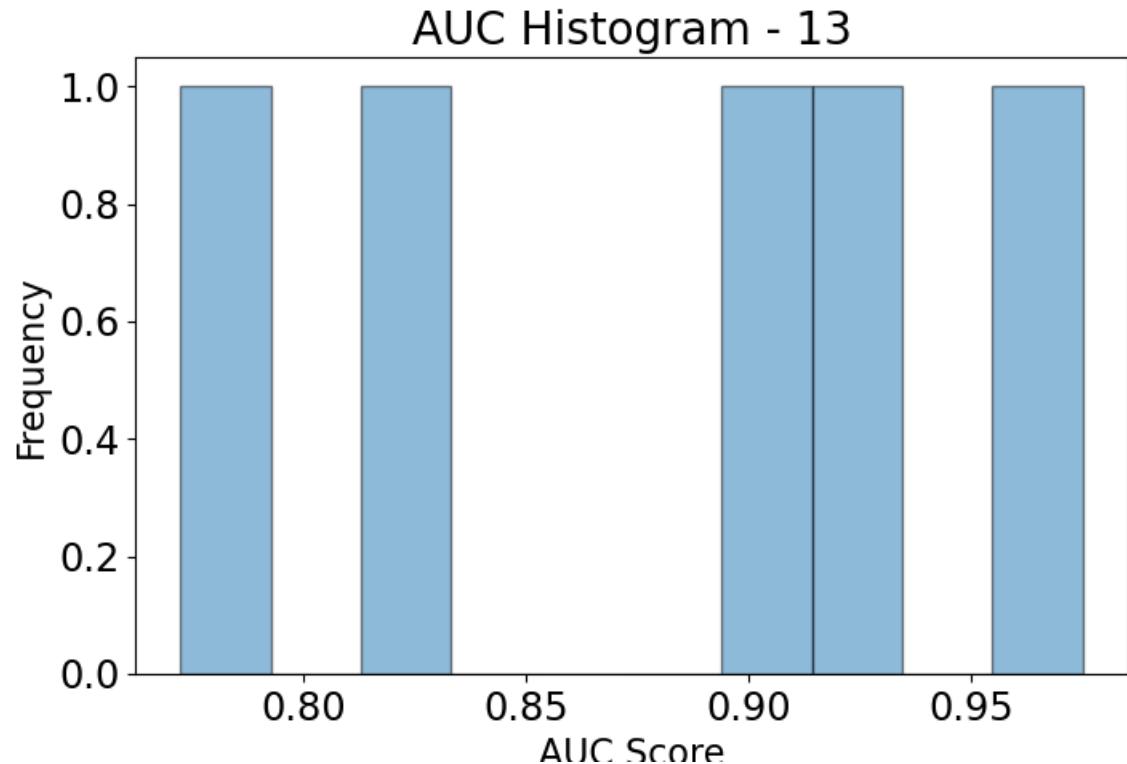
Category #	Category Name
0	Heterocapsa_triquetra
1	Protoperidinium
2	Thalassionema
3	amoeba
4	bad

Accuracy Loss Plot

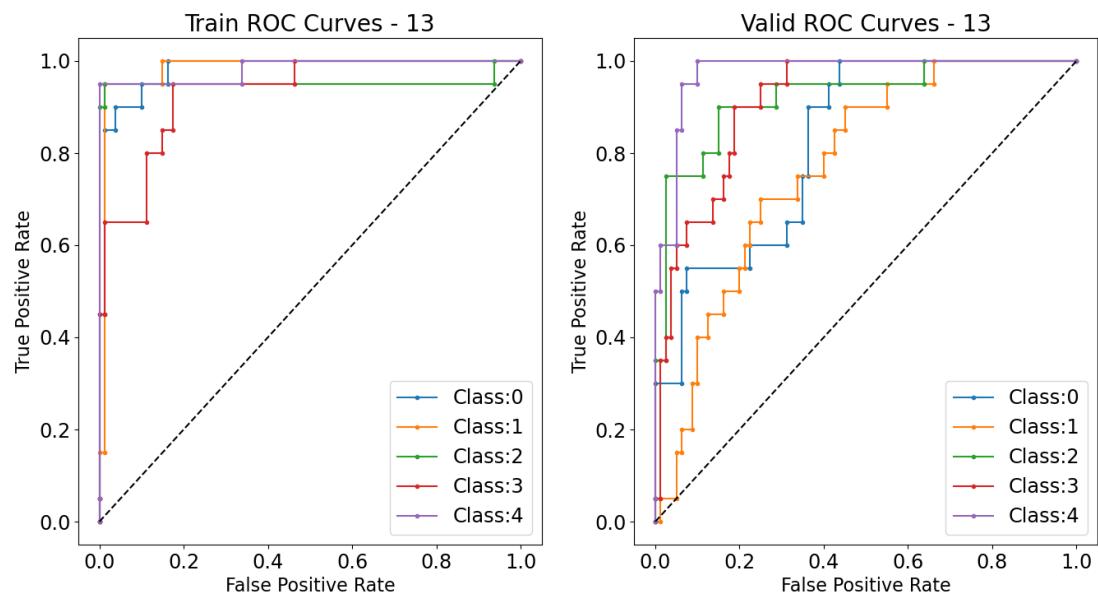


Confusion Matrix

**AUC****AUC Histogram**



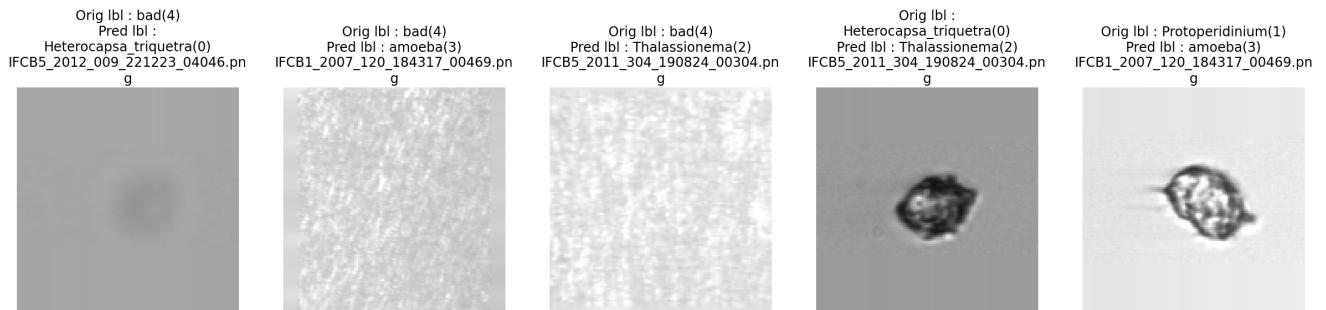
ROC Curves



Sample Images



Wrongly Classified Images



Super-Category 14

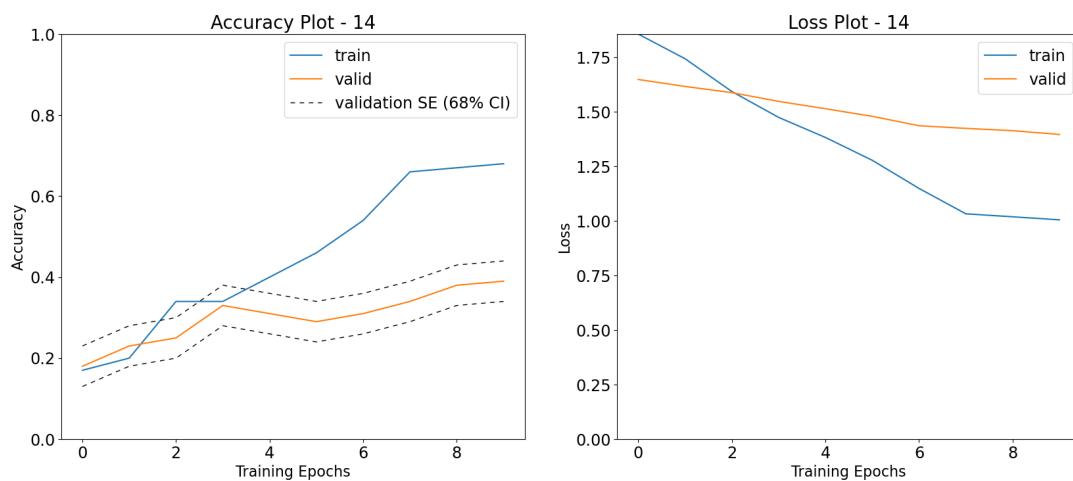
Statistics

Total Images	200
Train Images	100
Valid Images	100
Training Time	1m 2s
Best Train Accuracy	0.68
Best Valid Accuracy	0.39
AUC	0.79
2*AUC-1	0.58
Standard Error	0.05

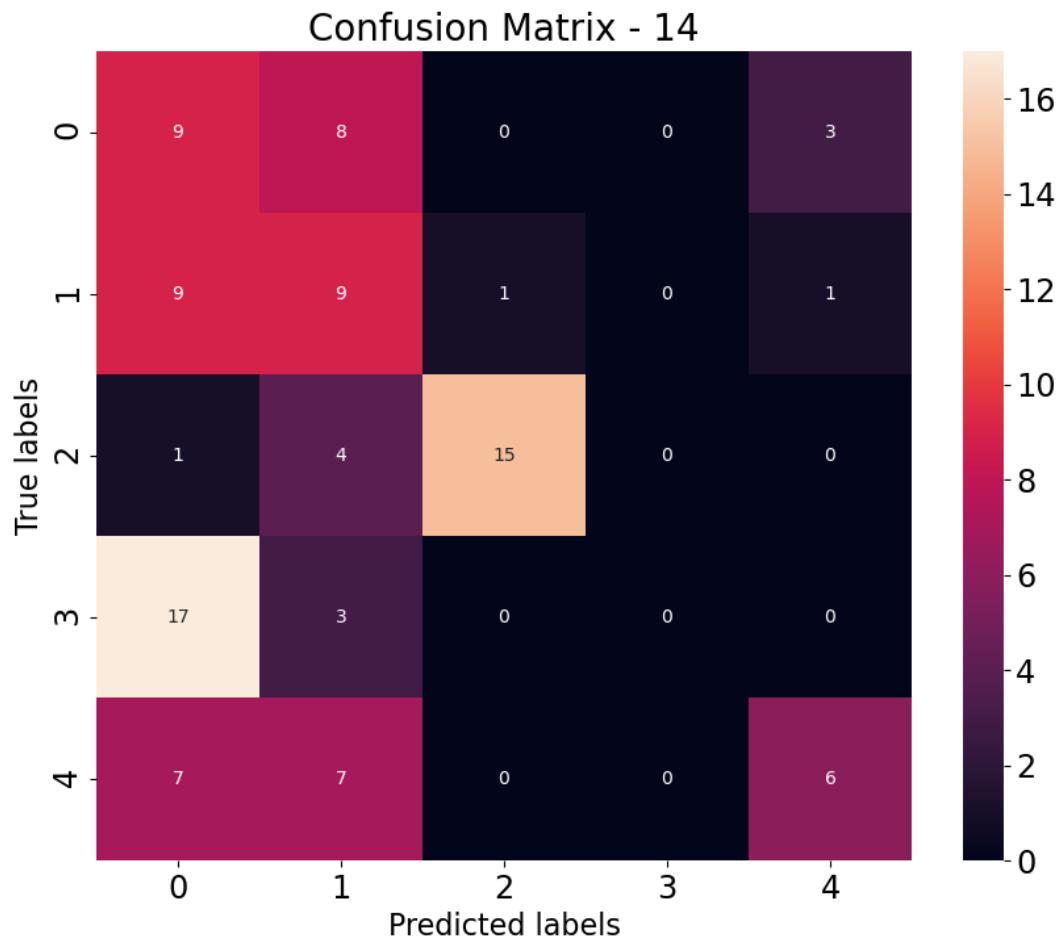
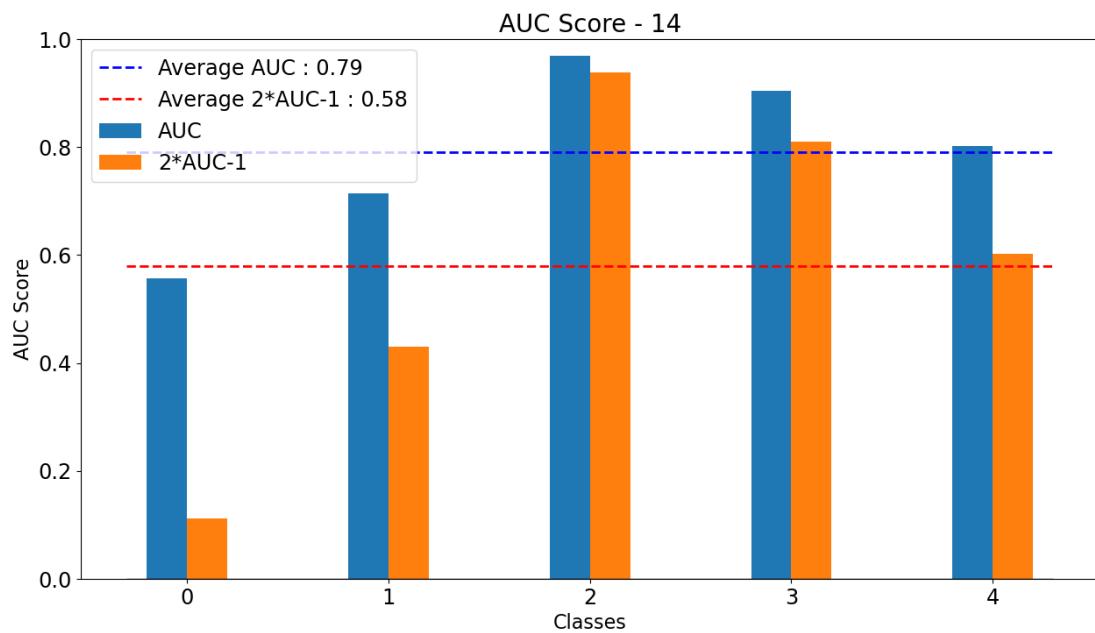
Categories

Category #	Category Name
0	Dinobryon
1	Guinardia_striata
2	Lauderia
3	Rhizosolenia
4	kiteflagellates

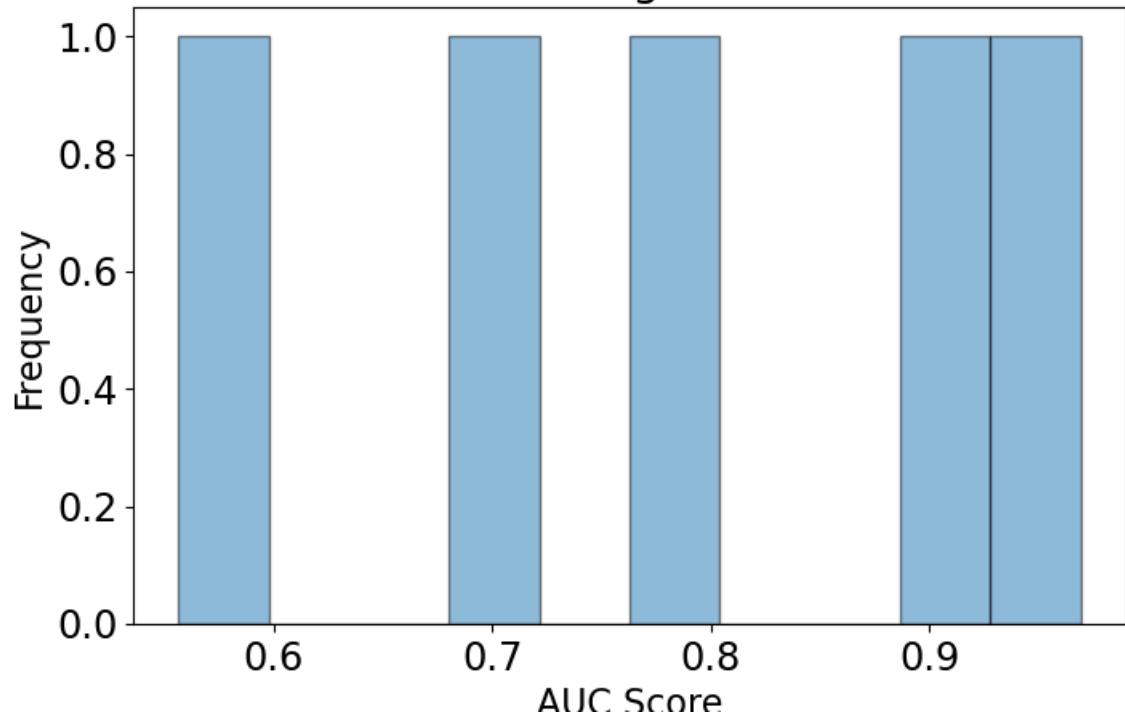
Accuracy Loss Plot



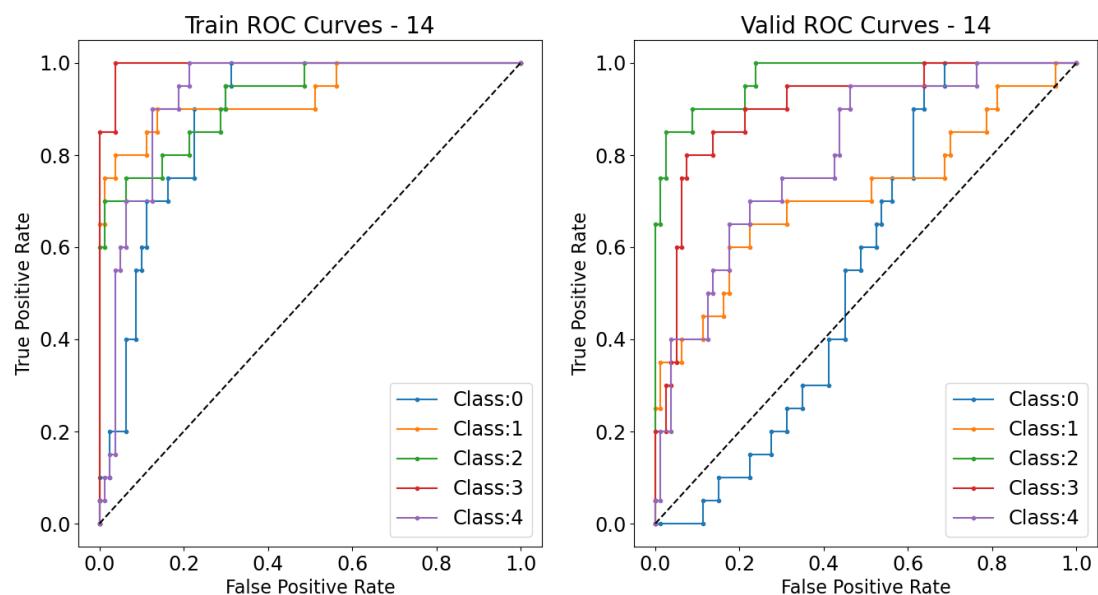
Confusion Matrix

**AUC****AUC Histogram**

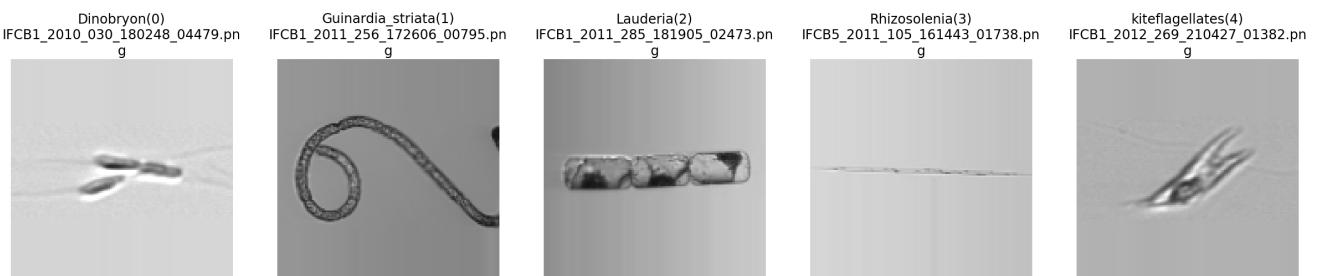
AUC Histogram - 14



ROC Curves

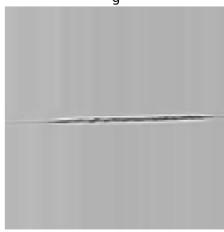


Sample Images

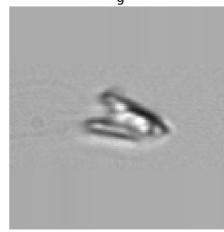


Wrongly Classified Images

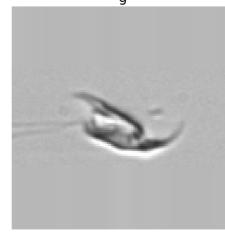
Orig lbl : Rhizosolenia(3)
Pred lbl : Dinobryon(0)
IFCB1_2007_360_184927_02360.pn
g



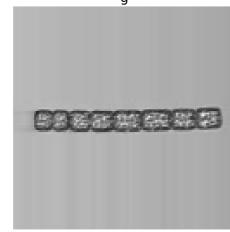
Orig lbl : kiteflagellates(4)
Pred lbl :
Guinardia_striata(1)
IFCB5_2011_105_161443_00024.pn
g



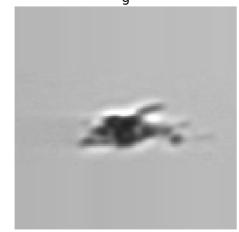
Orig lbl : kiteflagellates(4)
Pred lbl :
Dinobryon(0)
IFCB1_2007_360_184927_02360.pn
g



Orig lbl : Lauderia(2)
Pred lbl :
Guinardia_striata(1)
IFCB5_2011_105_161443_00024.pn
g



Orig lbl : kiteflagellates(4)
Pred lbl :
Guinardia_striata(1)
IFCB5_2011_105_161443_00024.pn
g



Super-Category 15

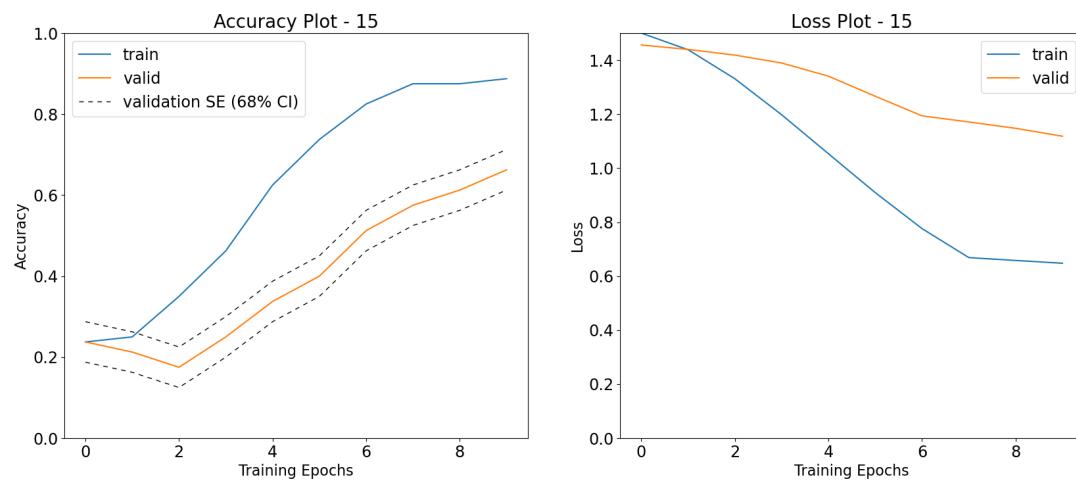
Statistics

Total Images	160
Train Images	80
Valid Images	80
Training Time	0m 51s
Best Train Accuracy	0.89
Best Valid Accuracy	0.66
AUC	0.83
2*AUC-1	0.66
Standard Error	0.05

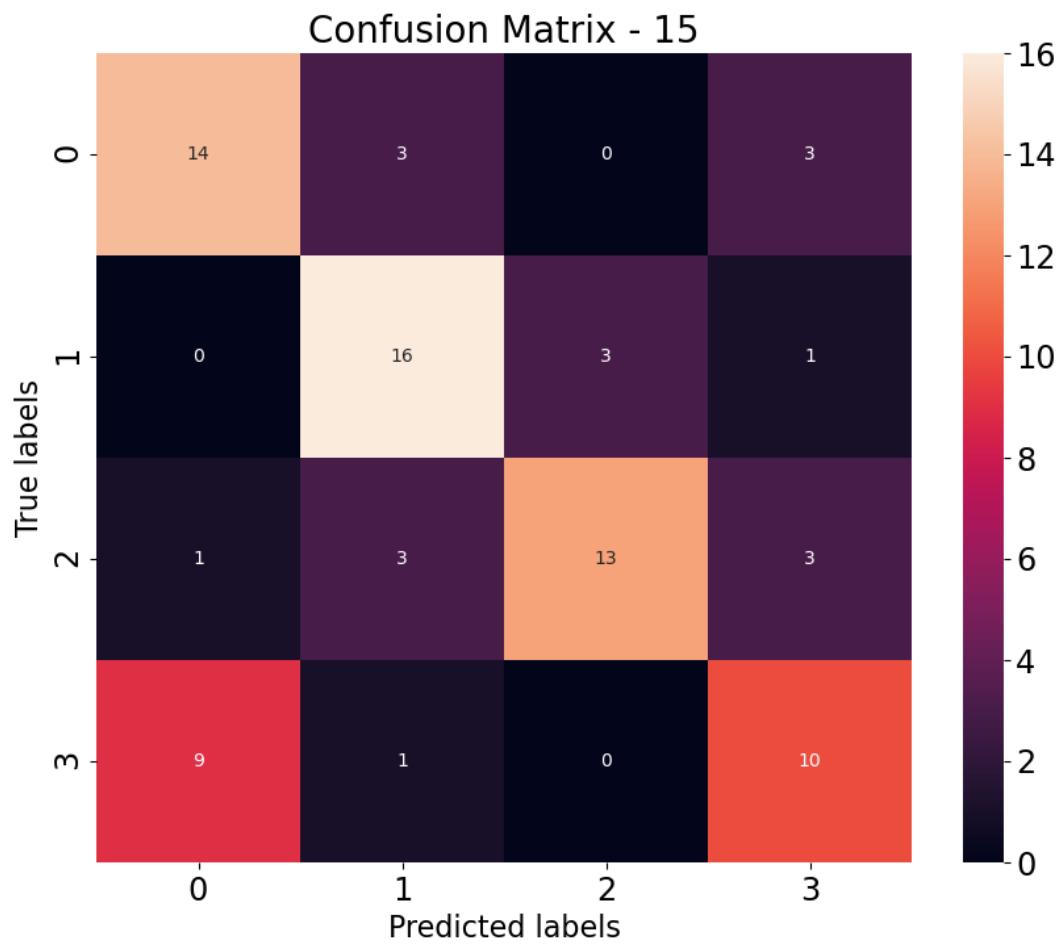
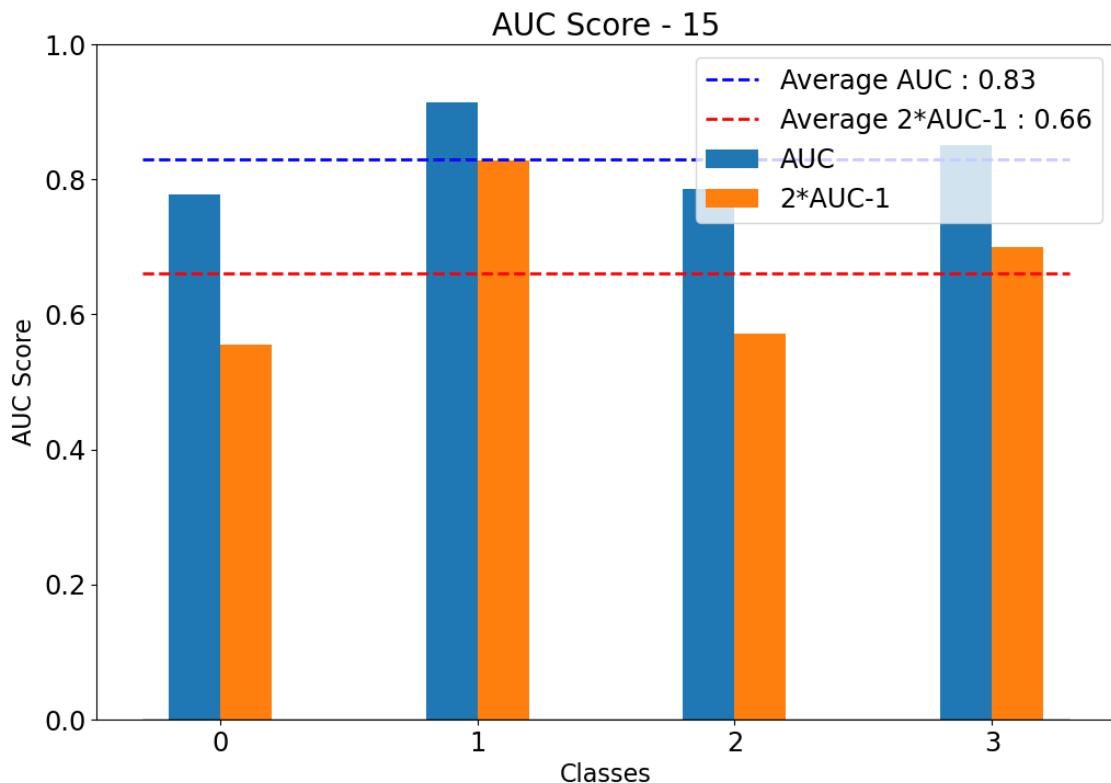
Categories

Category #	Category Name
0	Eucampia
1	Strombidium_oculatum
2	clusterflagellate
3	flagellate_sp3

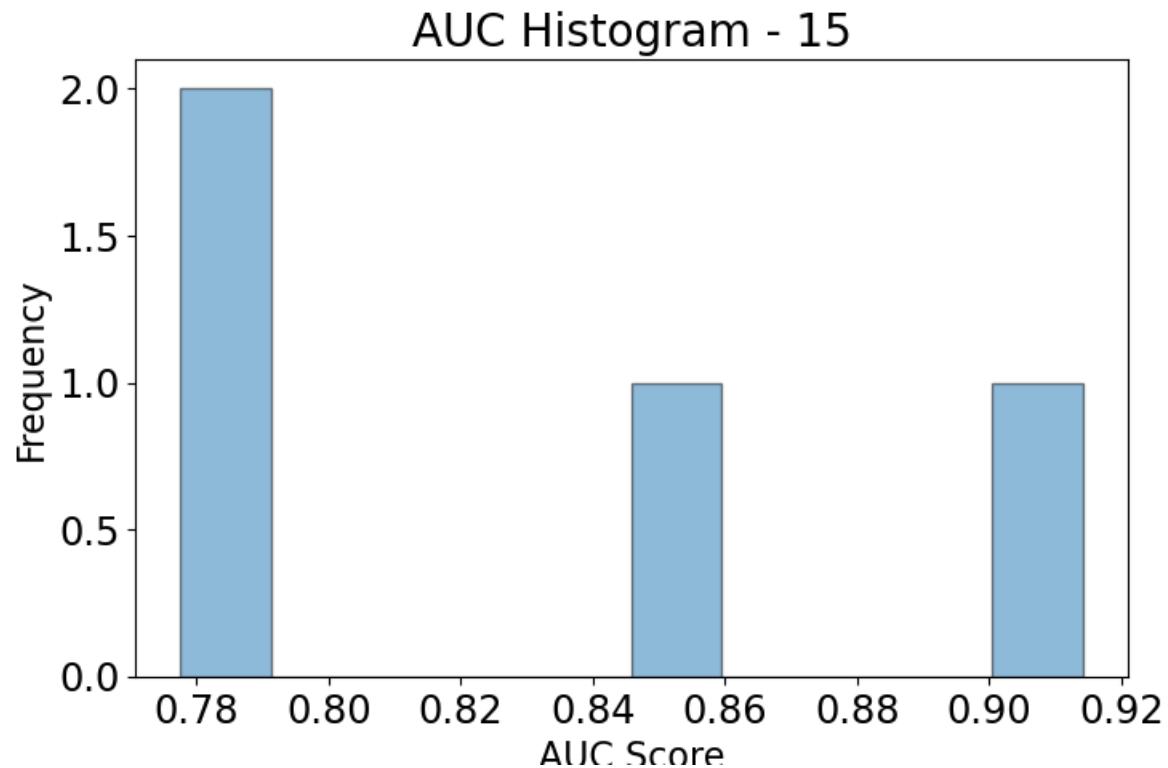
Accuracy Loss Plot



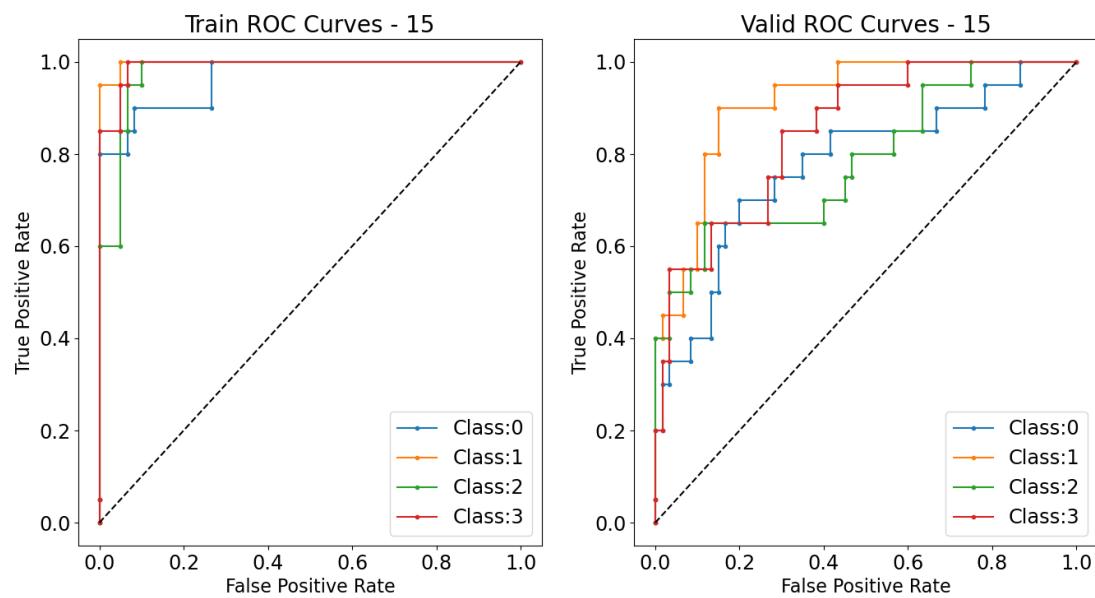
Confusion Matrix

**AUC**

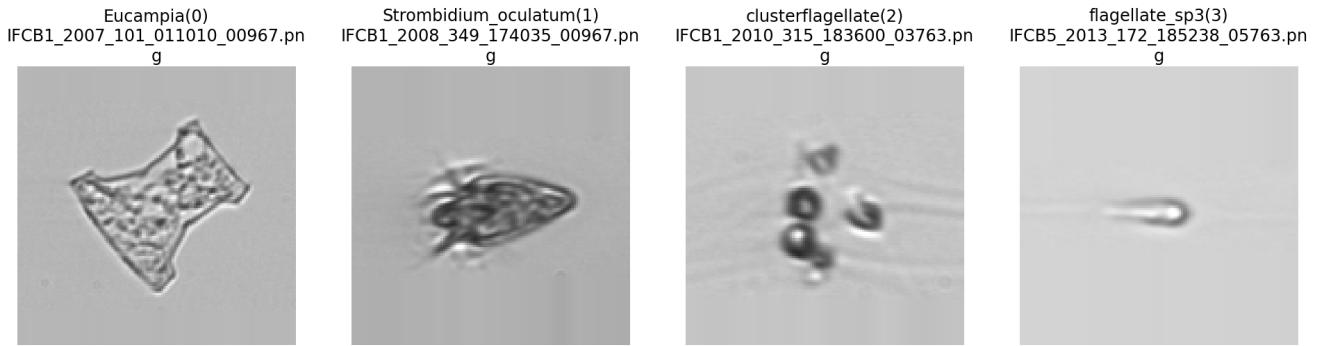
AUC Histogram



ROC Curves



Sample Images



Wrongly Classified Images



Super-Category 16

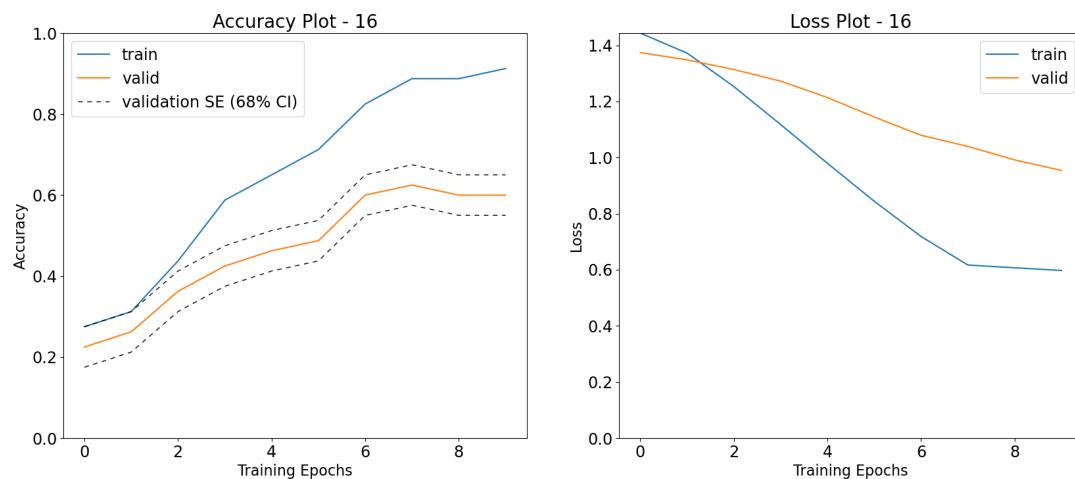
Statistics

Total Images	160
Train Images	80
Valid Images	80
Training Time	0m 51s
Best Train Accuracy	0.91
Best Valid Accuracy	0.62
AUC	0.9
2*AUC-1	0.81
Standard Error	0.05

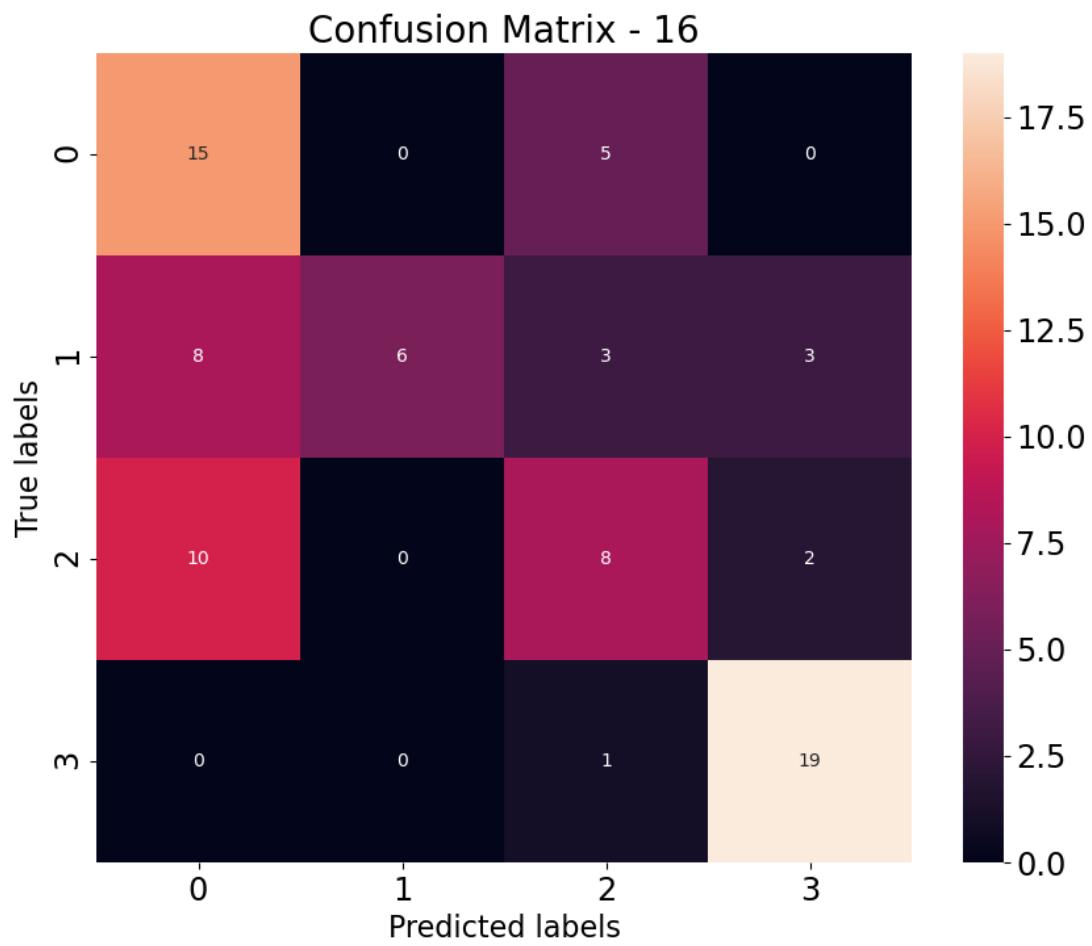
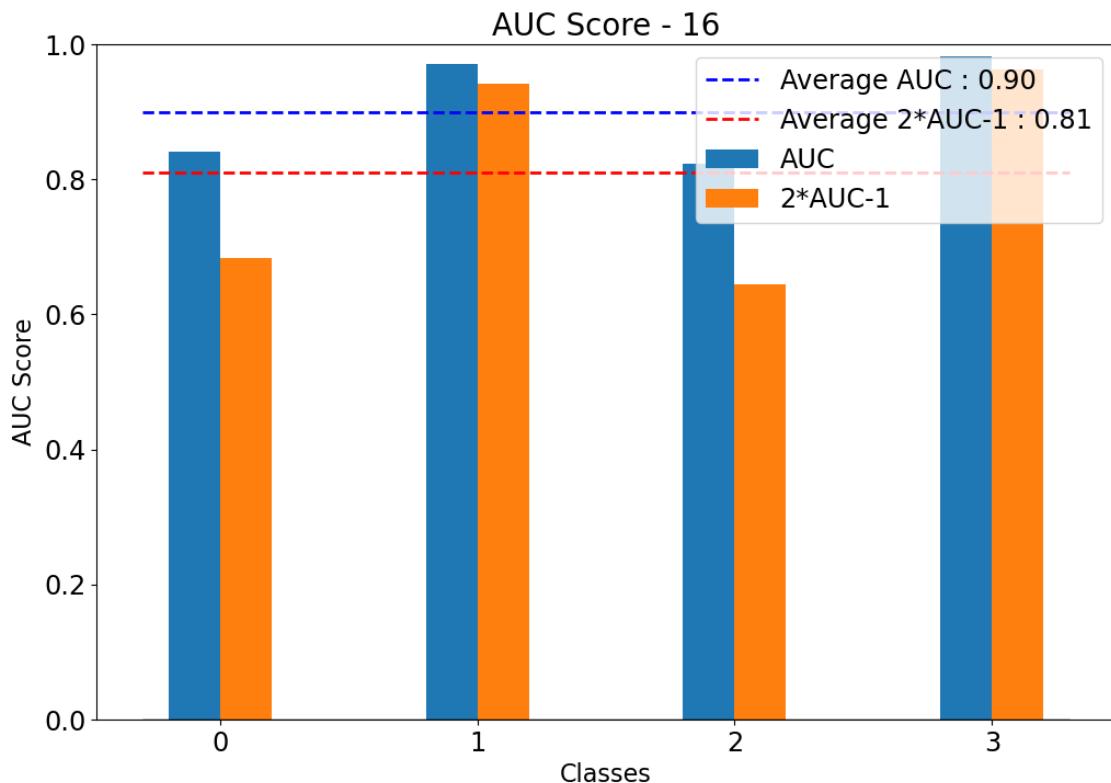
Categories

Category #	Category Name
0	Chaetoceros_didymus
1	Cylindrotheca
2	Mesodinium_sp
3	bead

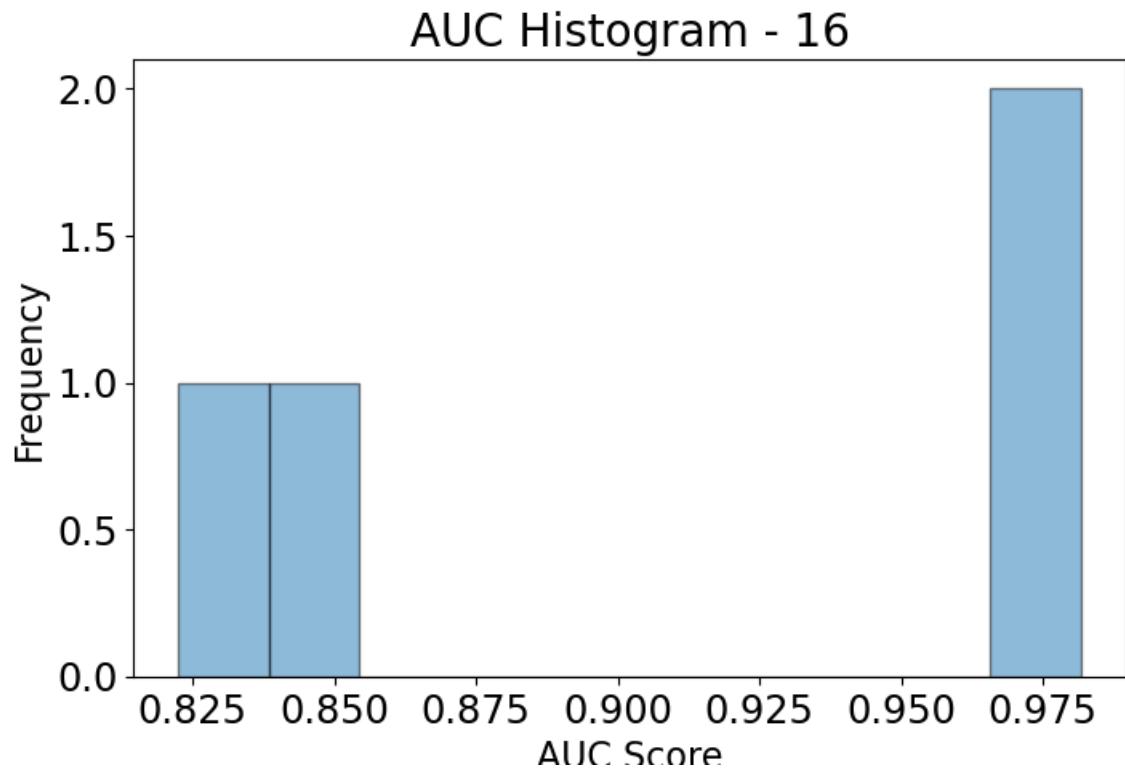
Accuracy Loss Plot



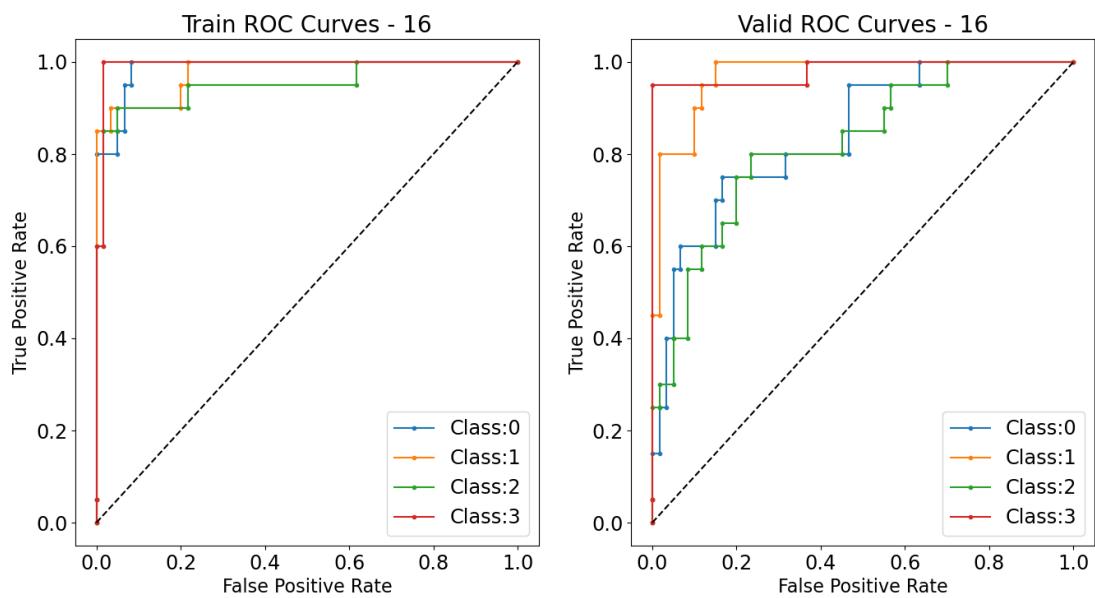
Confusion Matrix

**AUC**

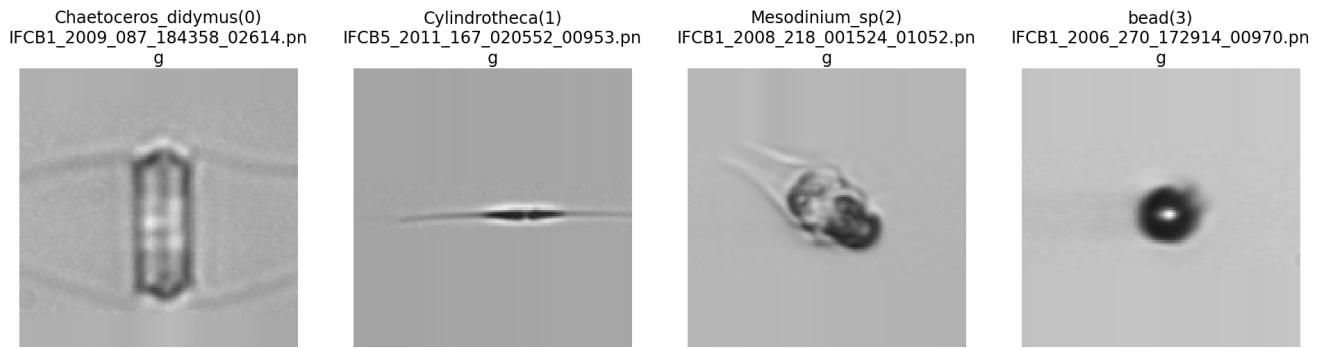
AUC Histogram



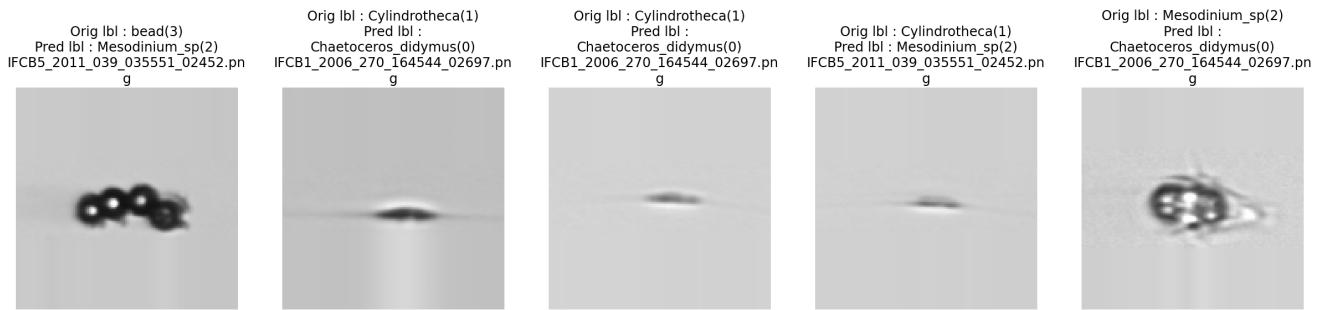
ROC Curves



Sample Images



Wrongly Classified Images



Super-Category 17

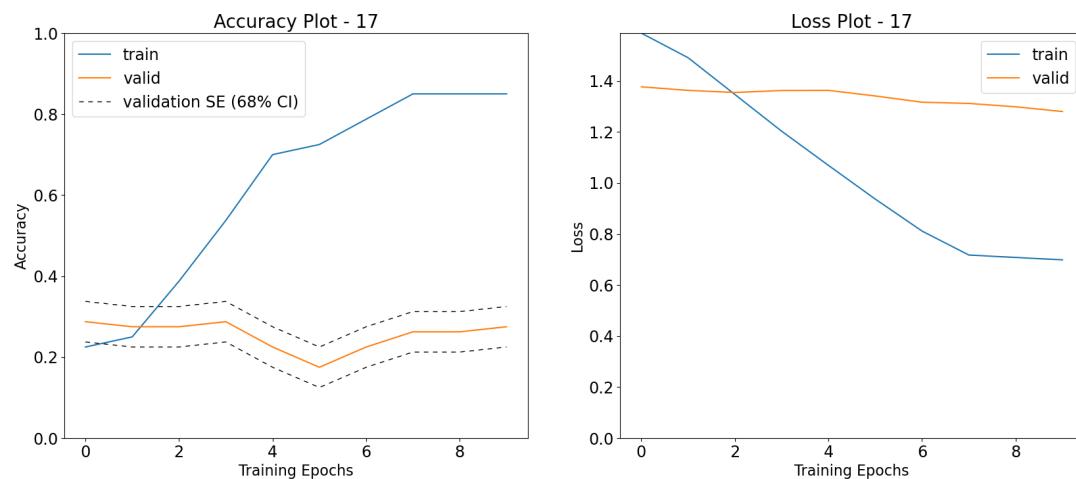
Statistics

Total Images	160
Train Images	80
Valid Images	80
Training Time	0m 51s
Best Train Accuracy	0.85
Best Valid Accuracy	0.29
AUC	0.69
2*AUC-1	0.37
Standard Error	0.05

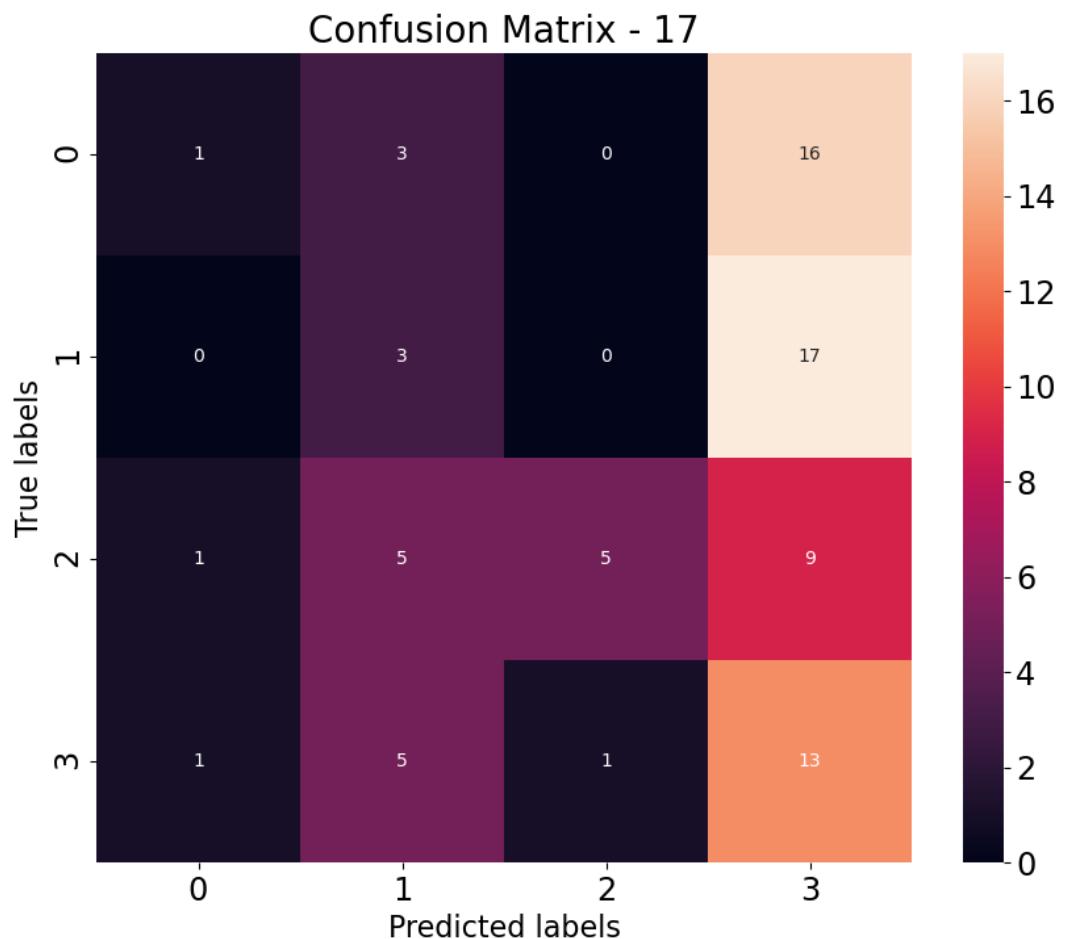
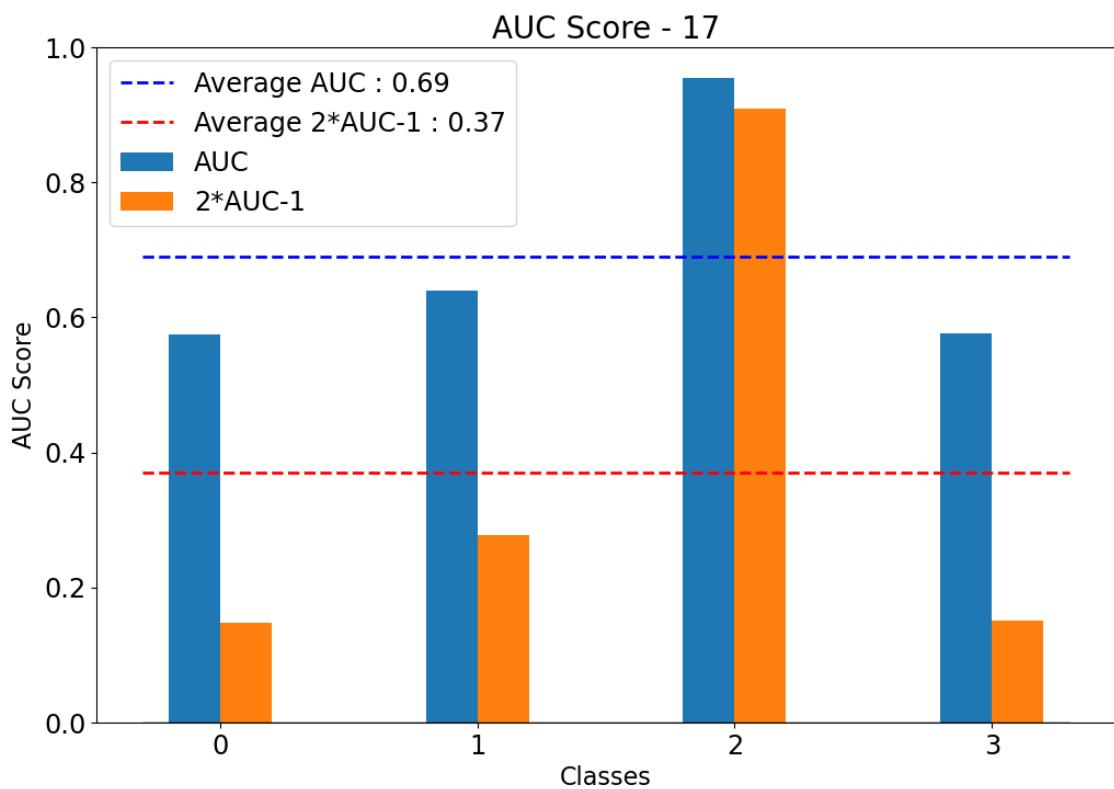
Categories

Category #	Category Name
0	Ditylum
1	Euglena
2	pennate_morphotype1
3	spore

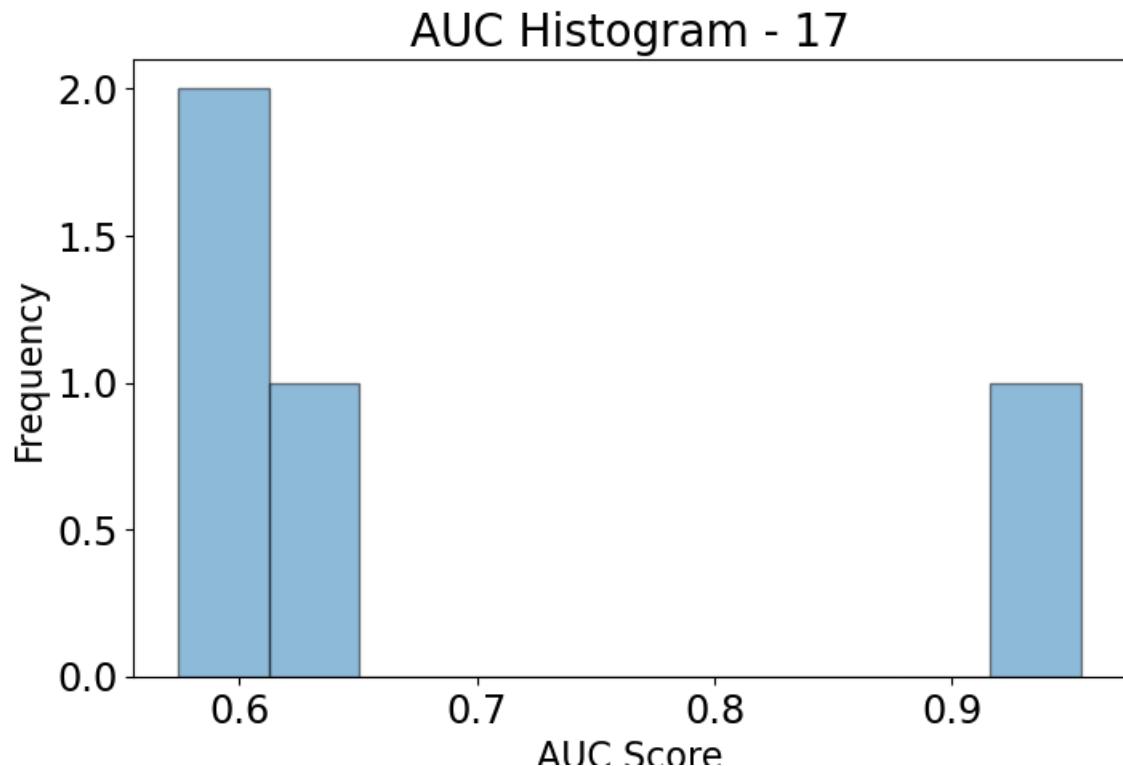
Accuracy Loss Plot



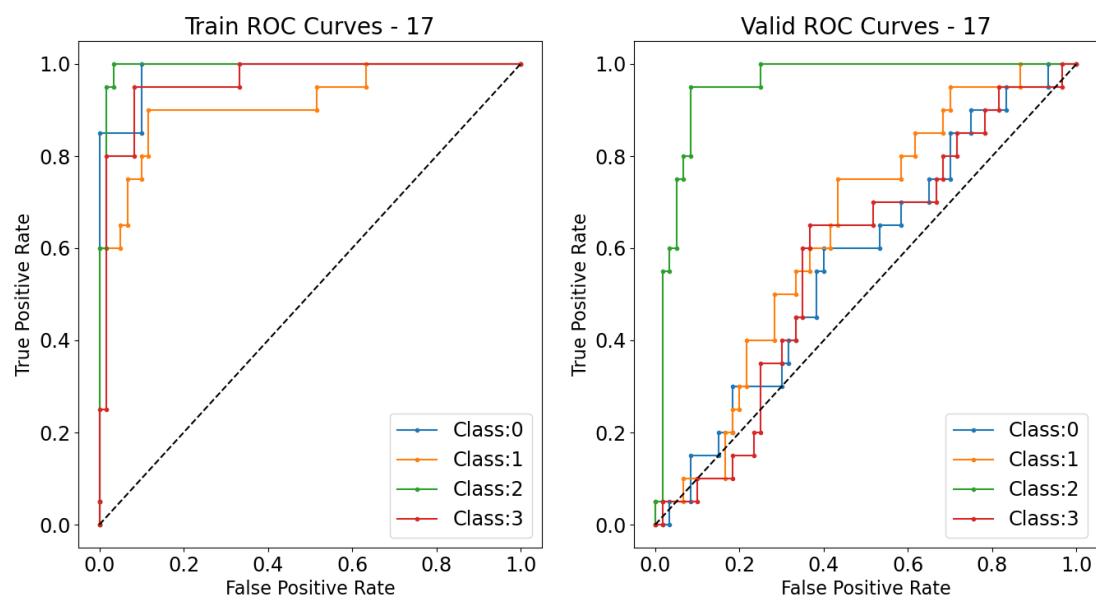
Confusion Matrix

**AUC**

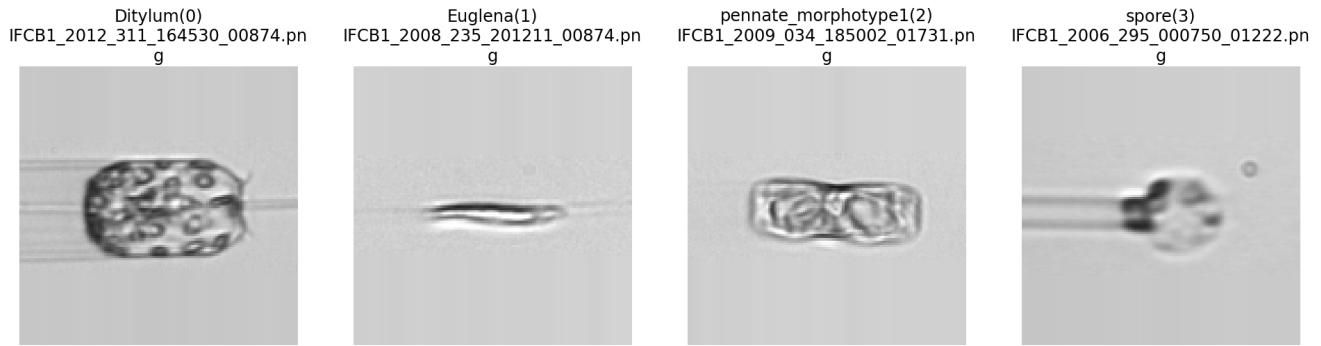
AUC Histogram



ROC Curves



Sample Images



Wrongly Classified Images



Super-Category 18

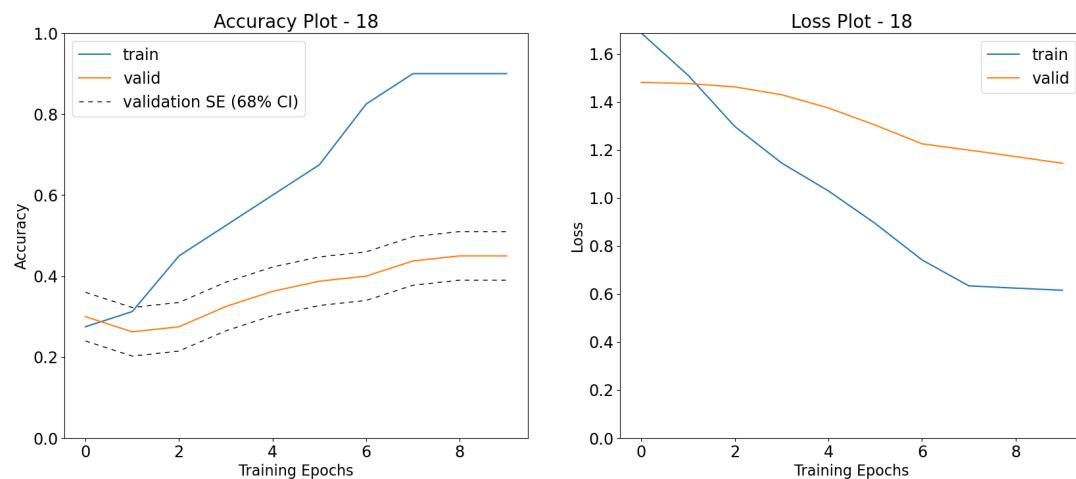
Statistics

Total Images	160
Train Images	80
Valid Images	80
Training Time	0m 52s
Best Train Accuracy	0.9
Best Valid Accuracy	0.45
AUC	0.8
2*AUC-1	0.61
Standard Error	0.06

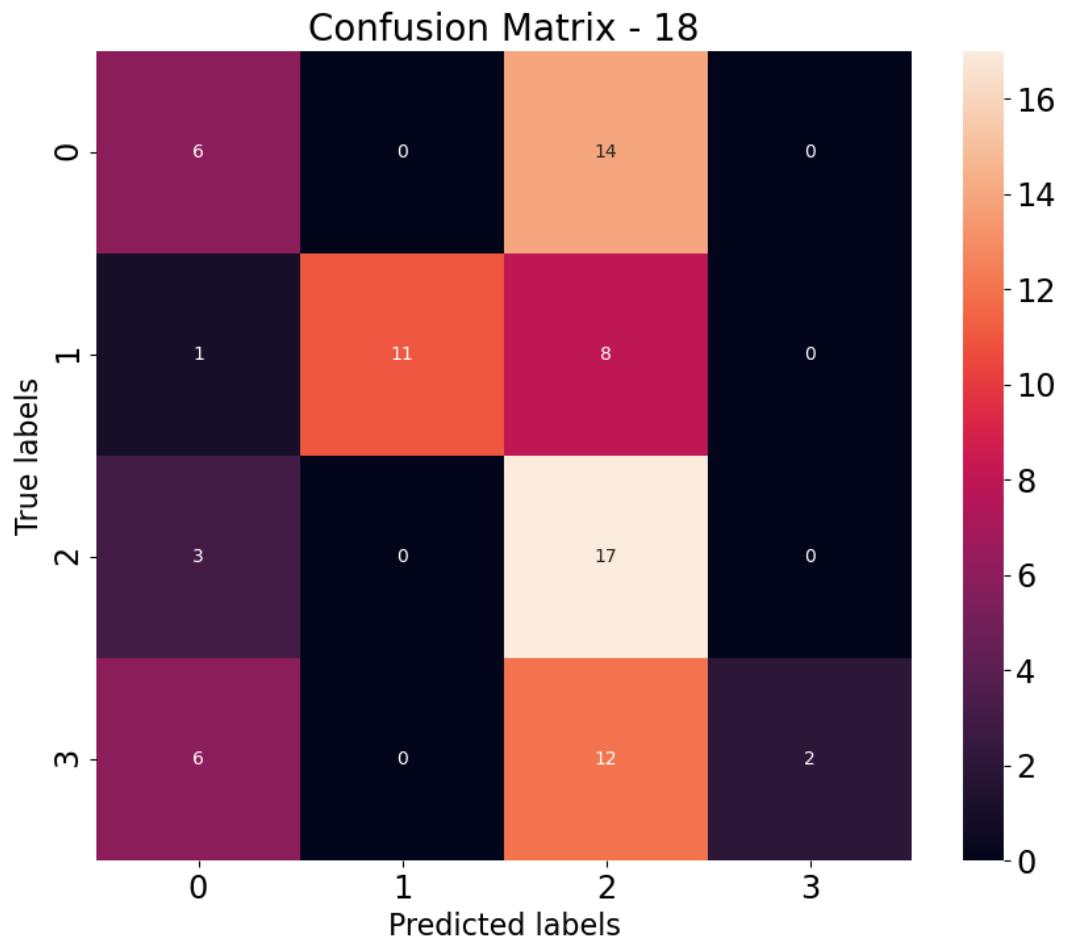
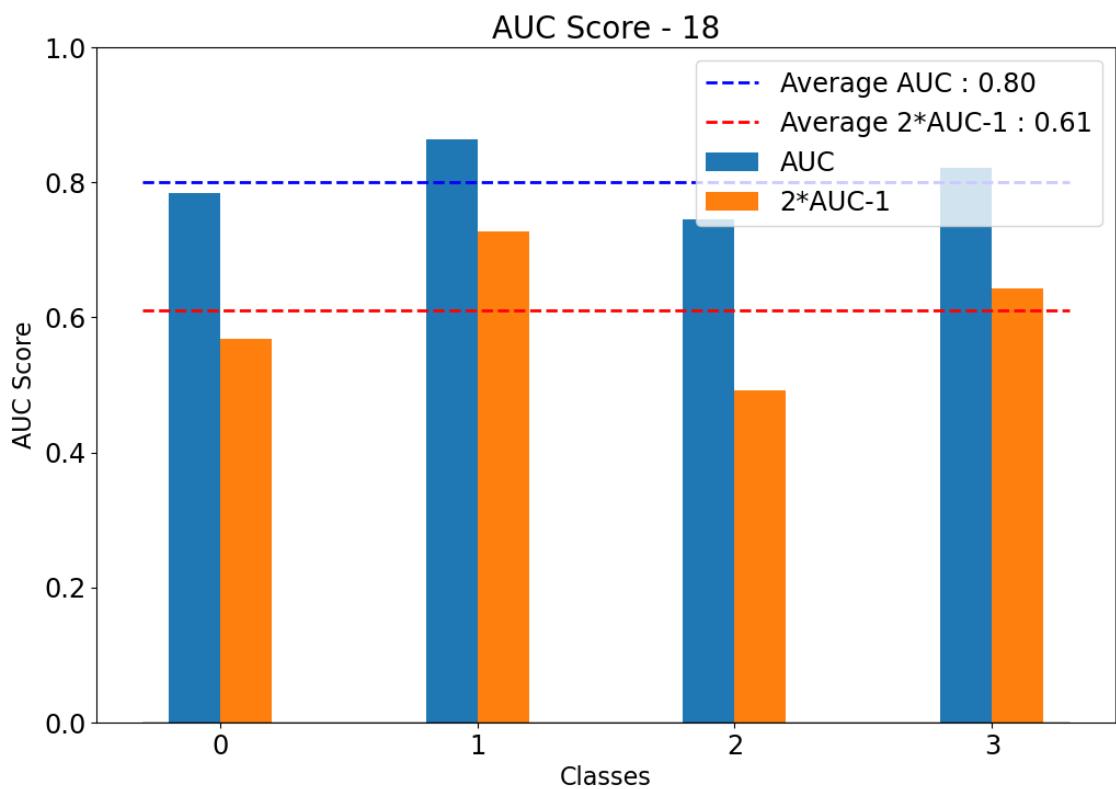
Categories

Category #	Category Name
0	Chaetoceros_didymus_flagellate
1	Laboea_strobila
2	Leptocylindrus_mediterraneus
3	Odontella

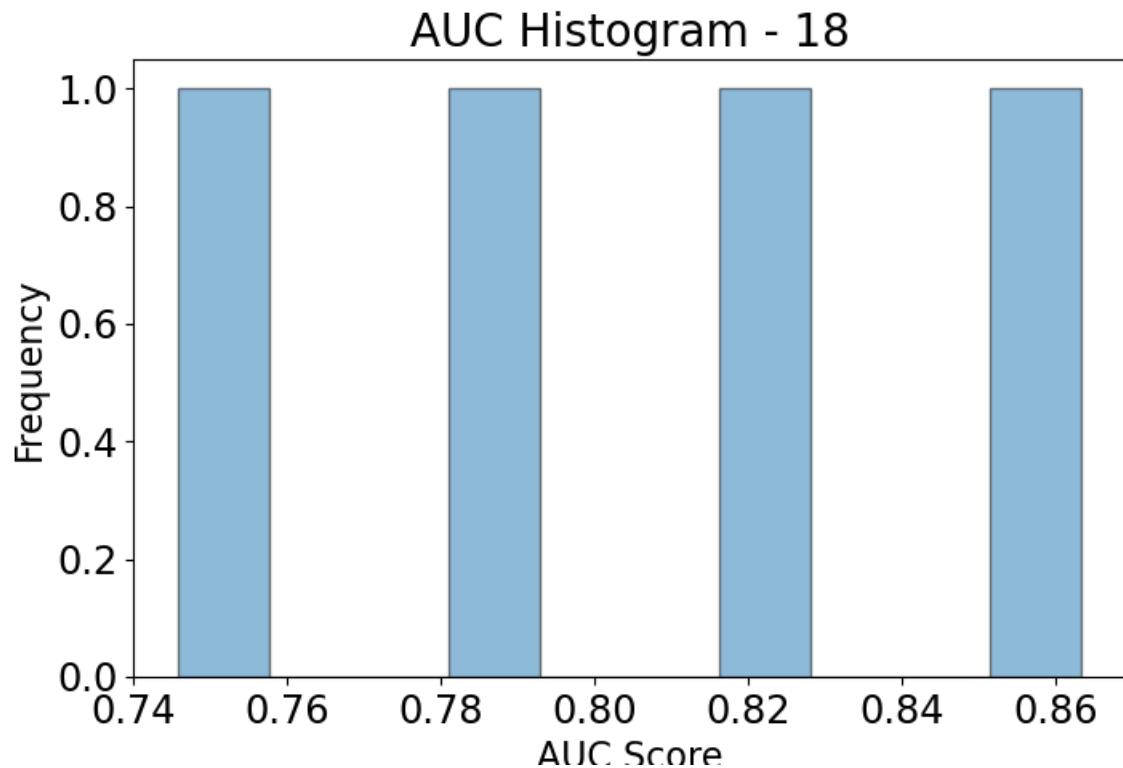
Accuracy Loss Plot



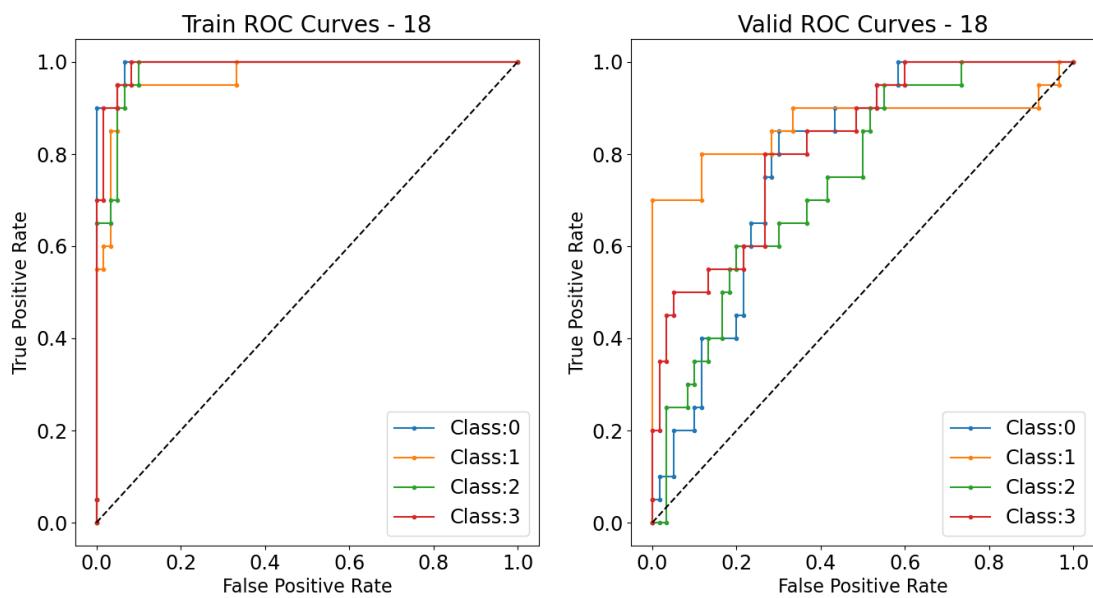
Confusion Matrix

**AUC**

AUC Histogram

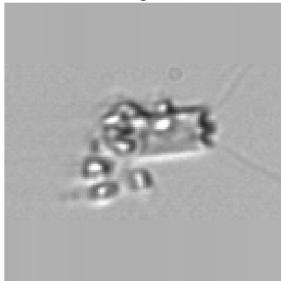


ROC Curves

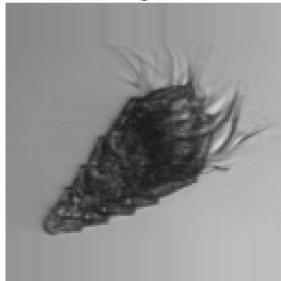


Sample Images

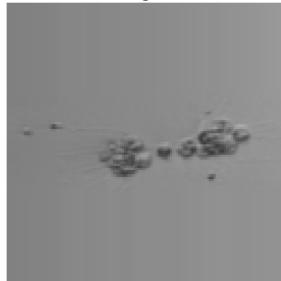
Chaetoceros_didymus_flagellate(0)

IFCB5_2011_090_165405_02939.pn
g

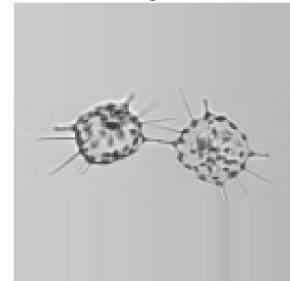
Laboea_strobila(1)

IFCB1_2007_136_183157_00219.pn
g

Leptocylindrus_mediterraneus(2)

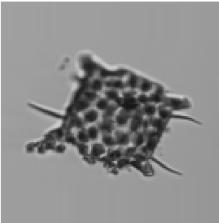
IFCB1_2012_260_015115_01868.pn
g

Odontella(3)

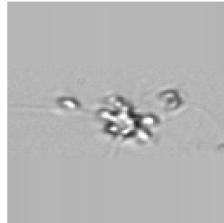
IFCB5_2013_262_121153_03322.pn
g

Wrongly Classified Images

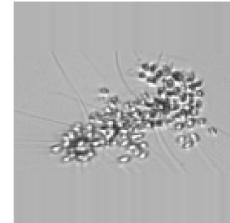
Orig lbl : Odontella(3)
Pred lbl : Chaetoceros_didymus_flagellate(0)
IFCB5_2011_316_161805_03475.pn
g



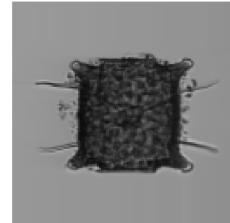
Orig lbl : Chaetoceros_didymus_flagellate(0)
Pred lbl : Leptocylindrus_mediterraneus(2)
IFCB1_2012_262_004331_00306.pn
g



Orig lbl : Chaetoceros_didymus_flagellate(0)
Pred lbl : Leptocylindrus_mediterraneus(2)
IFCB1_2012_262_004331_00306.pn
g



Orig lbl : Odontella(3)
Pred lbl : Chaetoceros_didymus_flagellate(0)
IFCB5_2011_316_161805_03475.pn
g



Orig lbl : Odontella(3)
Pred lbl : Leptocylindrus_mediterraneus(2)
IFCB1_2012_262_004331_00306.pn
g

