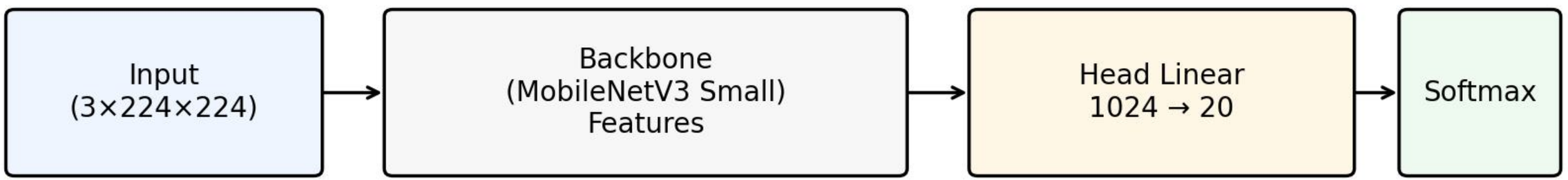
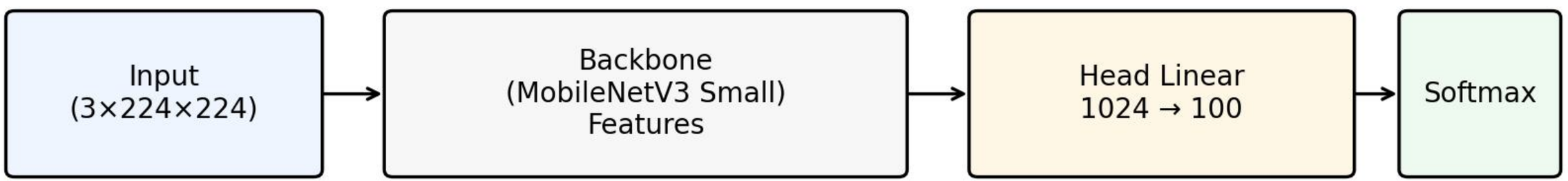
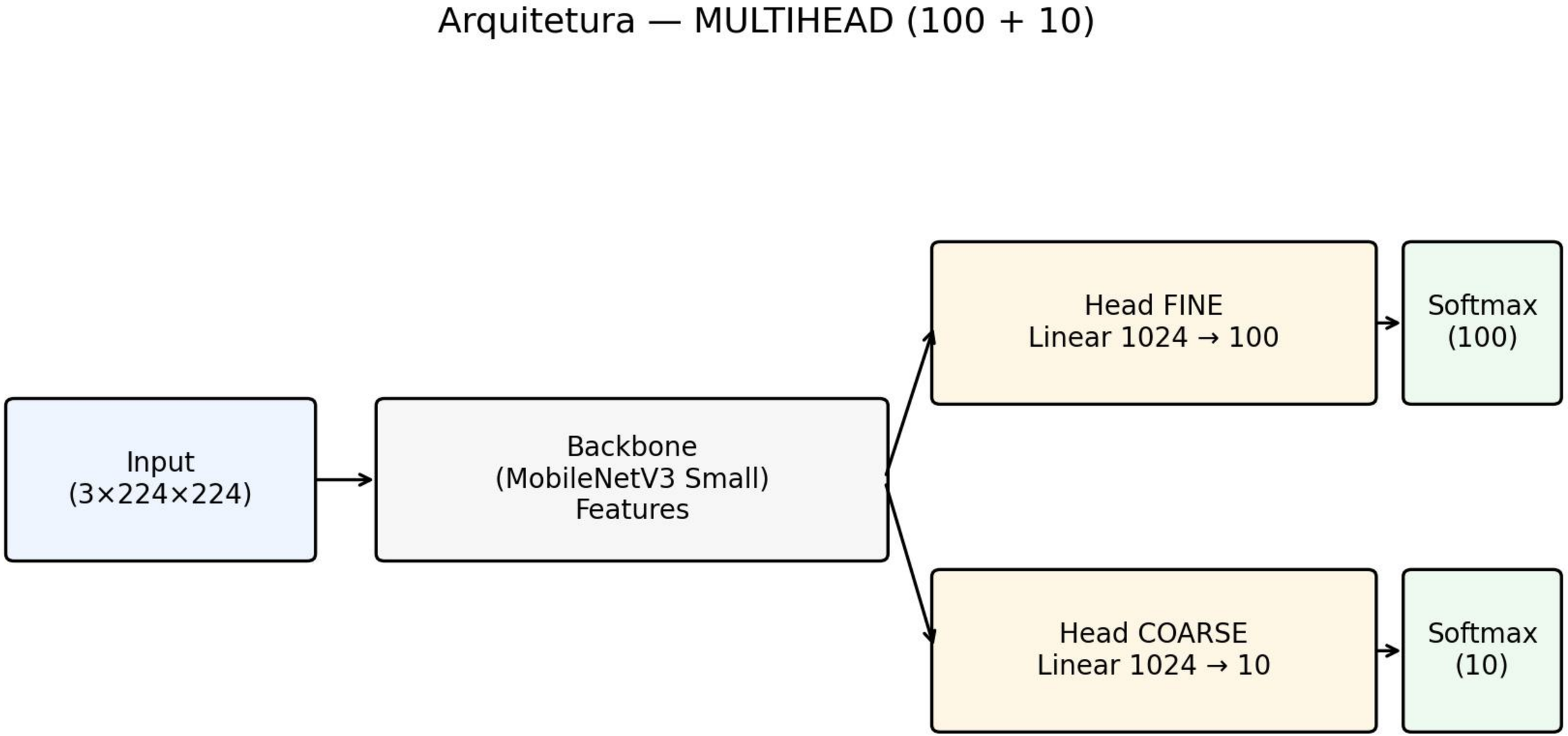
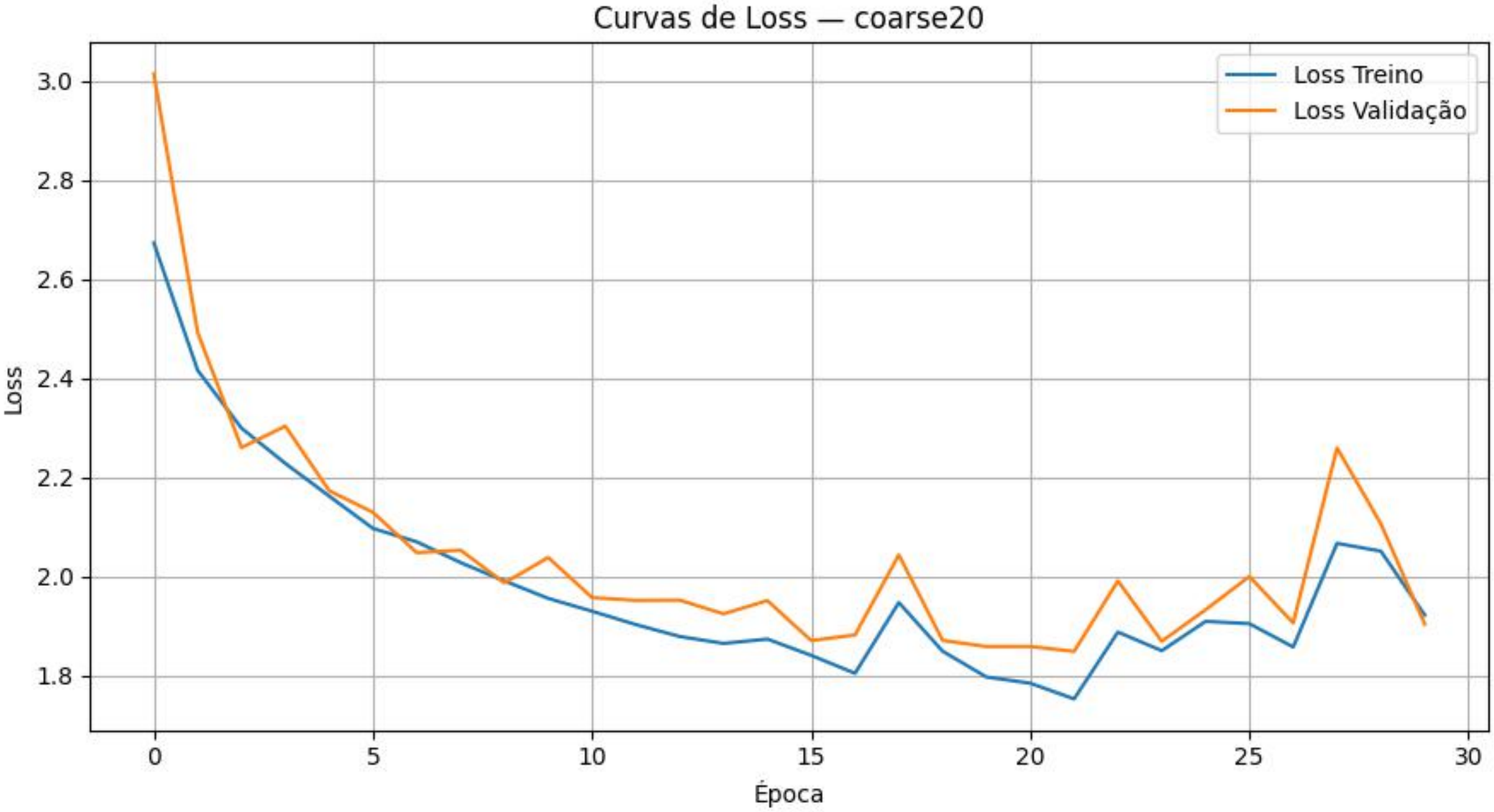
Arquitetura — COARSE20

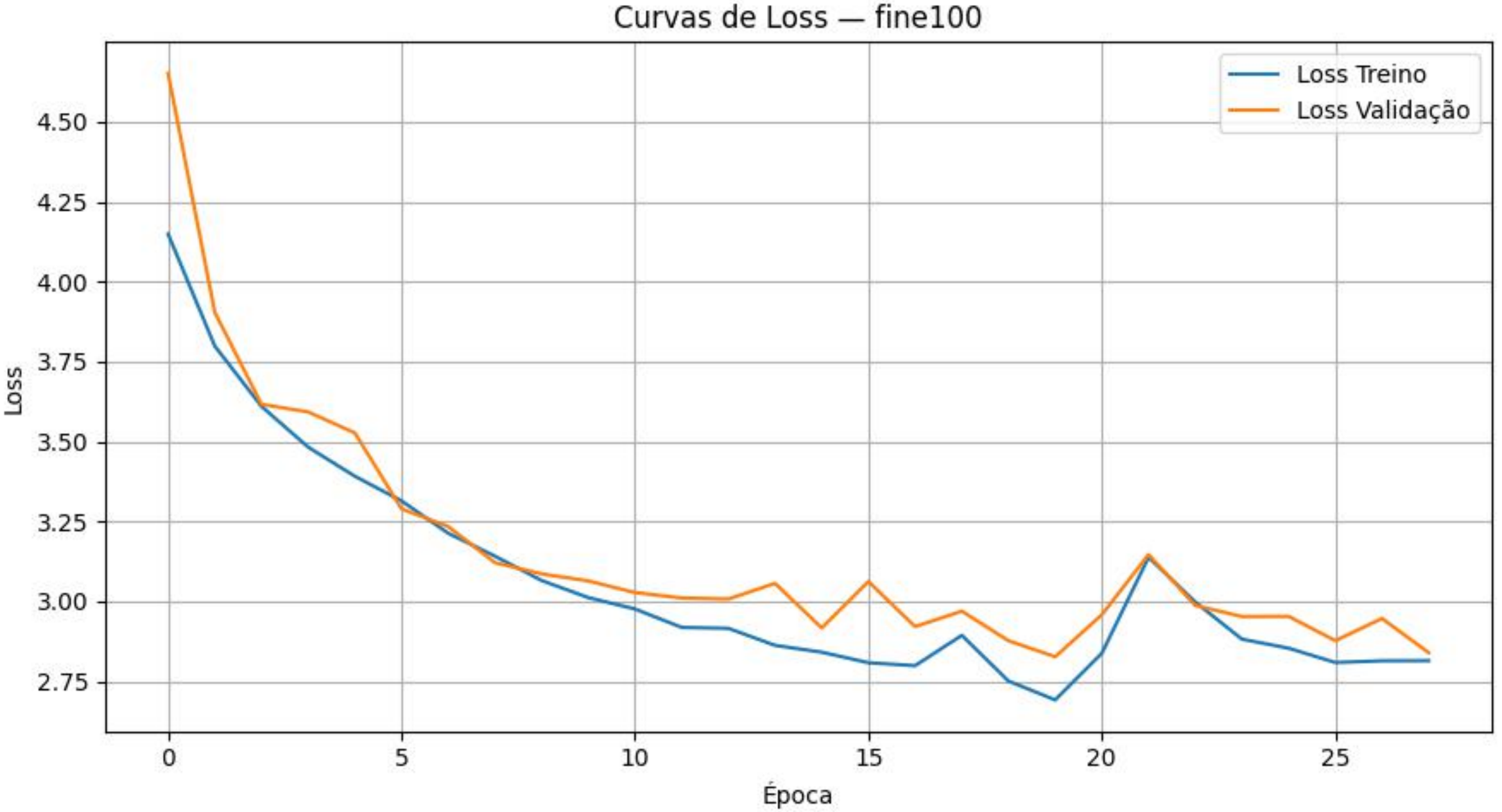


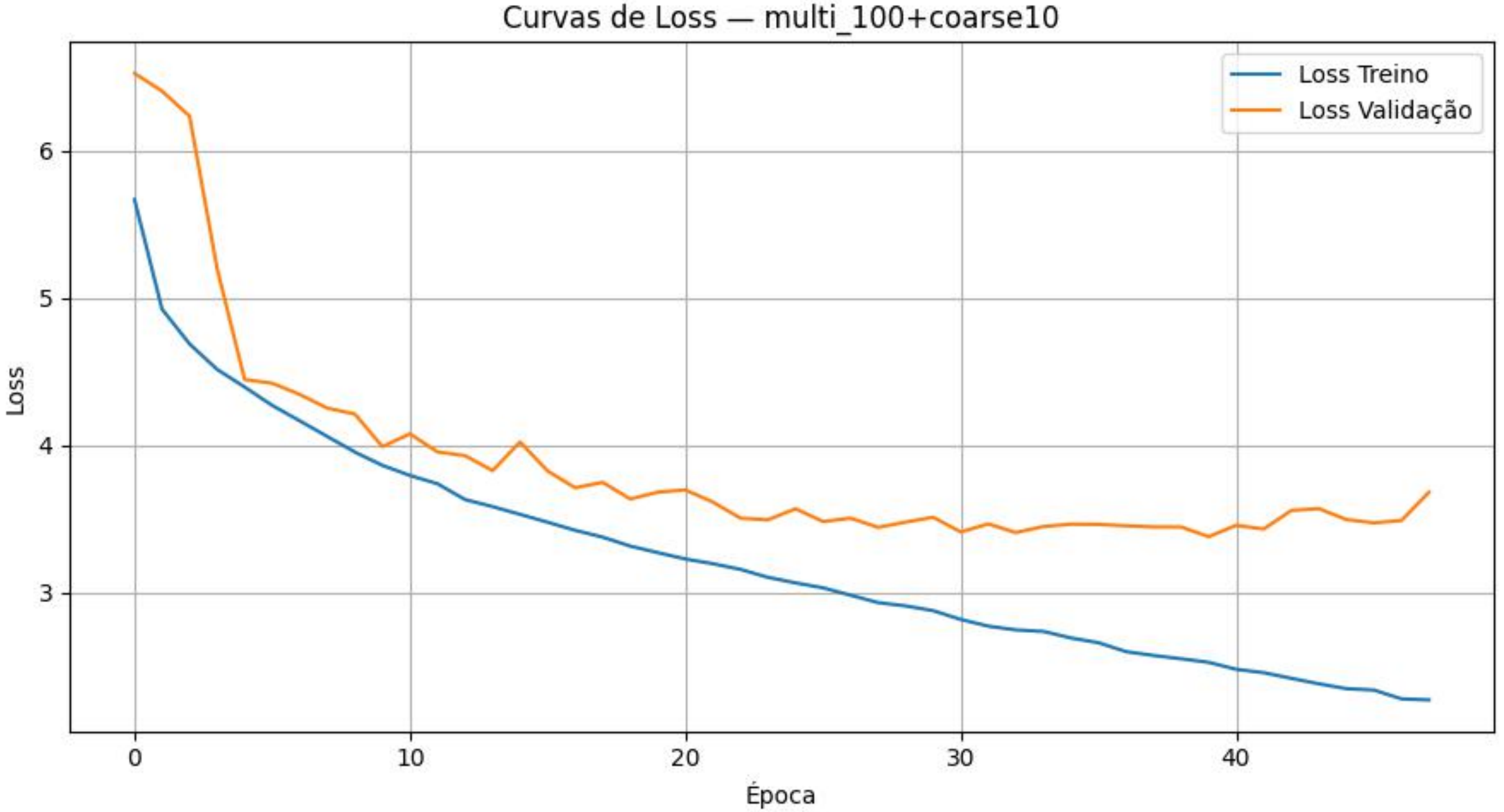
Arquitetura — FINE100




Arquitetura — MULTIHEAD (100 + 10)
Input
(3×224×224)
Backbone
(MobileNetV3 Small)
Features
Head FINE
Linear 1024 → 100
Softmax
(100)
Head COARSE
Linear 1024 → 10
Softmax
(10)


Curvas de Loss — coarse20
Loss Treino
Loss Validação
Loss
Época
3.0
2.8
2.6
2.4
2.2
2.0
1.8
0
5
10
15
20
25
30


Curvas de Loss — fine100
Loss Treino
Loss Validação
Loss
Época
4.50
4.25
4.00
3.75
3.50
3.25
3.00
2.75
0
5
10
15
20
25


Curvas de Loss — multi_100+coarse10
Loss Treino
Loss Validação
Loss
Época
6
5
4
3
0
10
20
30
40

Matriz de Confusão — Superclasses (test)

Real \ Predito	aquatic_mammals	fish	flowers	food_containers	fruit_and_vegetables	household_electrical	household_furniture	insects	large_carnivores	large_manmade_outdoor	large_natural_outdoor	large_omnivores_herb	medium_mammals	noninsect_invertebrates	people	reptiles	small_mammals	trees	vehicles_1	vehicles_2
aquatic_mammals	0	5	3	3	0	6	15	0	0	2	452	0	0	9	0	0	0	0	0	5
fish	0	15	12	2	0	7	26	0	0	2	420	0	0	12	0	1	0	1	0	2
flowers	0	25	120	2	0	0	5	0	0	0	316	0	0	16	0	14	0	1	1	0
food_containers	0	0	12	4	0	9	25	0	0	3	437	0	0	7	0	1	0	1	0	1
fruit_and_vegetables	0	9	48	1	0	3	41	0	0	0	349	0	0	27	0	22	0	0	0	0
household_electrical	0	5	15	1	0	11	24	0	0	1	432	0	0	7	0	3	0	0	0	1
household_furniture	0	1	4	1	0	10	65	0	0	0	388	0	0	21	0	10	0	0	0	0
insects	0	8	50	3	0	12	23	0	0	2	384	0	0	18	0	0	0	0	0	0
large_carnivores	0	1	5	0	0	1	24	0	0	1	427	0	0	41	0	0	0	0	0	0
large_manmade_outdoor	0	1	11	1	0	0	3	0	0	1	481	0	0	1	0	1	0	0	0	0
large_natural_outdoor	0	4	19	0	0	0	13	0	0	0	456	0	0	6	0	1	0	0	0	1
large_omnivores_herb	0	4	9	0	0	1	7	0	0	0	466	0	0	12	0	1	0	0	0	0
medium_mammals	0	2	11	2	0	0	5	0	0	0	461	0	0	19	0	0	0	0	0	0
noninsect_invertebrates	0	11	16	5	0	9	28	0	0	2	411	0	0	14	0	2	0	1	0	1
people	0	5	5	0	0	1	25	0	0	0	453	0	0	9	0	2	0	0	0	0
reptiles	0	7	8	0	0	4	24	0	0	1	436	0	0	15	0	3	0	0	0	2
small_mammals	0	2	5	1	0	2	18	0	0	0	431	0	0	39	0	2	0	0	0	0
trees	0	4	31	0	0	2	2	0	0	1	452	0	0	7	0	0	0	0	0	1
vehicles_1	0	1	17	0	0	5	8	0	0	0	467	0	0	2	0	0	0	0	0	0
vehicles_2	0	2	22	1	0	12	7	0	0	1	454	0	0	1	0	0	0	0	0	0

Real

Predito

400

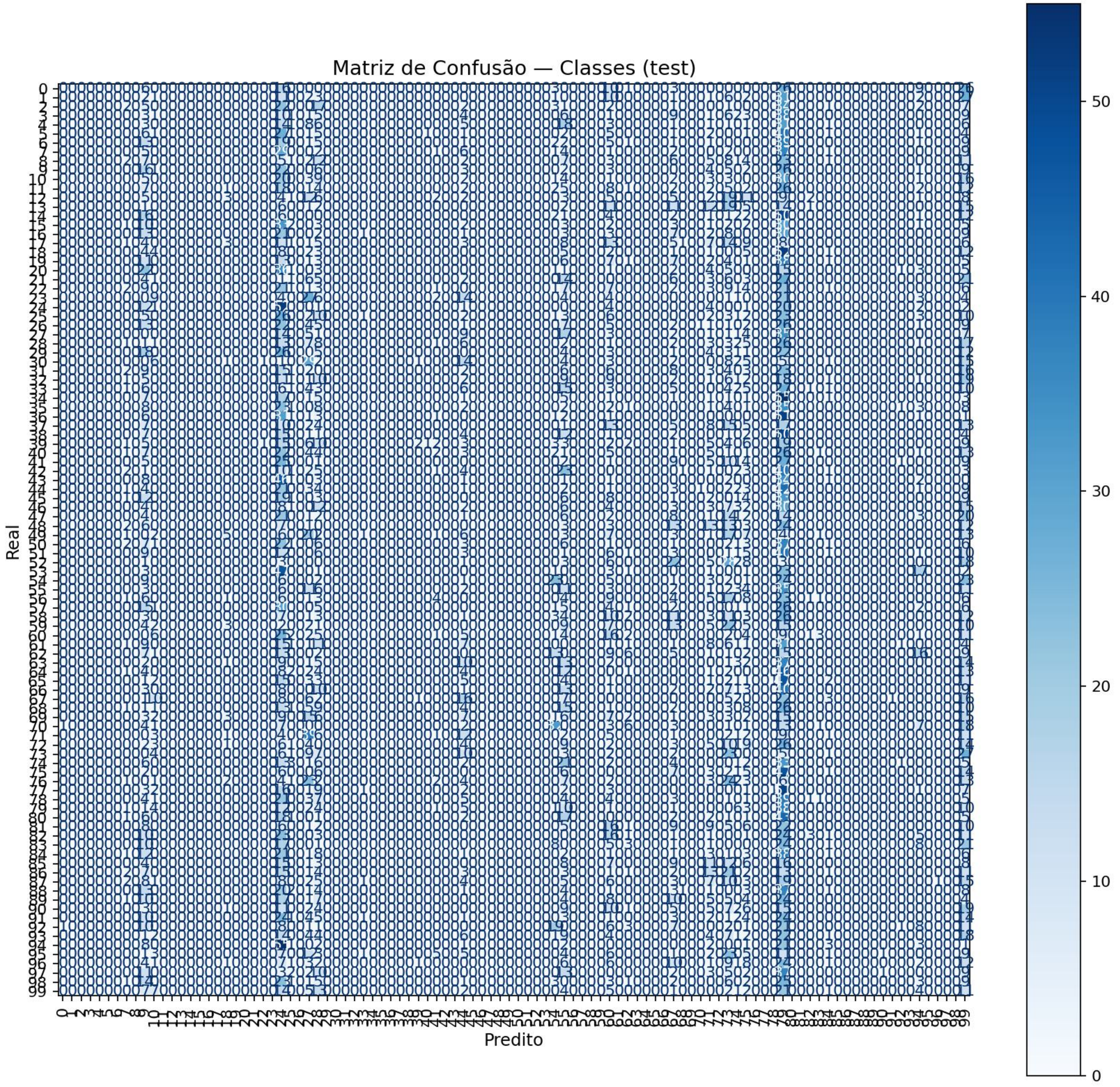
300

200

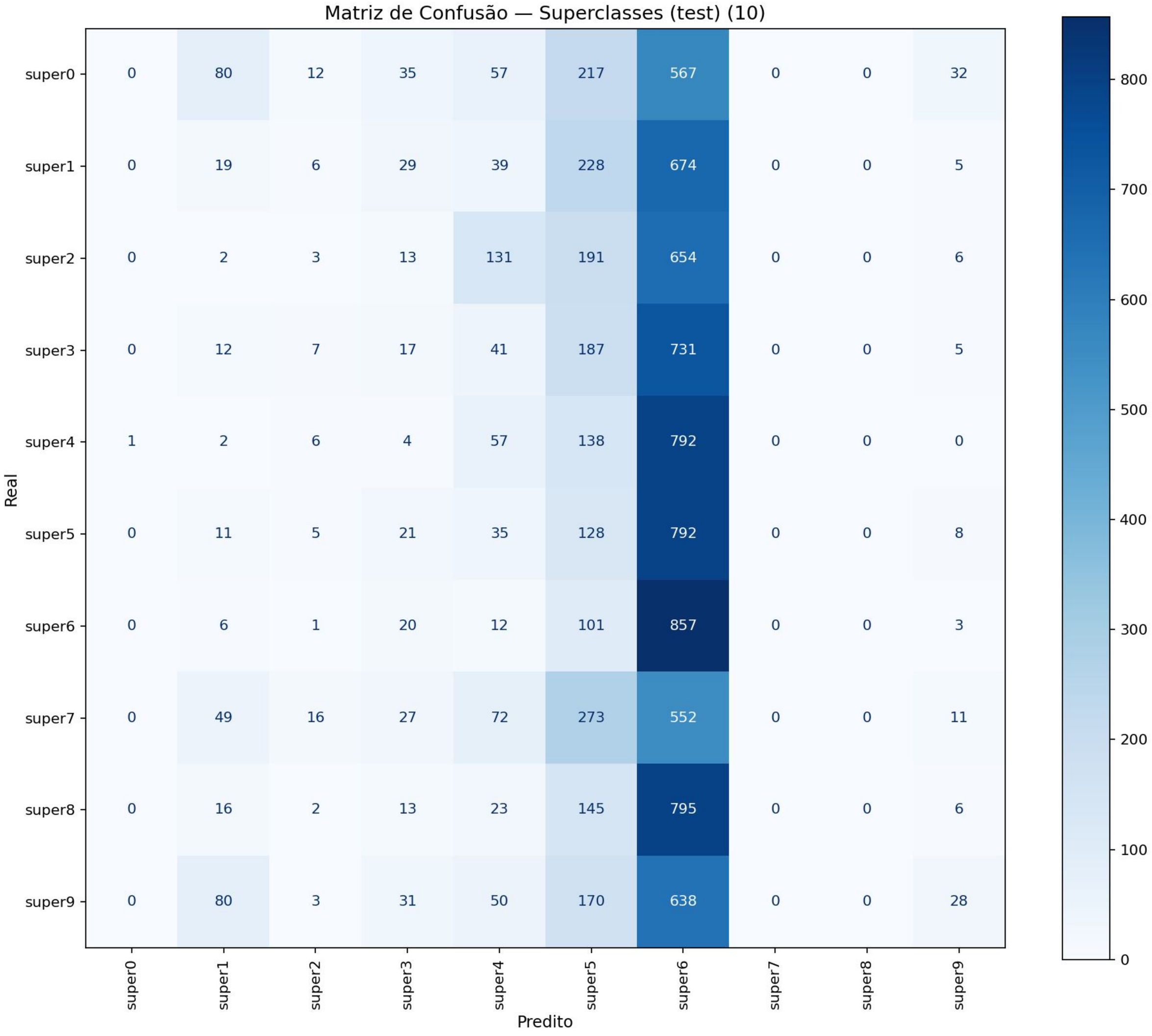
100

0

Matriz de Confusão — Classes (teste) — Single-head (100)



Matriz de Confusão — Superclasses (teste) — Multihead



Matriz de Confusão — Classes (teste) — Multihead