

1. What four rivers does the delta in Alabama drain through?
 1. *Mobile River*
 2. *Tensaw River*
 3. *Blakeley River*
 4. *Apalachee Rivers*
2. What non-native bivalve threatens the possible elimination of threatened species?

The Zebra Mussel.
3. Why is this non-native species so successful?

It competes with other mussels and has no natural predators.
4. What does SMZ stand for?

Streamside Management Zone.
5. Name three ecological important aspects of SMZ?
 1. *It prevents the increase in water temperature.*
 2. *The cooler water provides more oxygen.*
 3. *It can maintain high diversity of plants and animals.*
6. What are the major rivers that drain into Mobile Bay?
 1. *Warrior River*
 2. *Tombigee River*
 3. *Coosa River*
 4. *Tallapoosa River*
 5. *Alabama River*
 6. *Mobile River*

7. What is a jubilee?

Water that is low in oxygen – light East wind that blows surface water away from the coastline, which allows for oxygen to creep closer to the beach.

8. How are sand dunes formed on barrier islands?

They are caused by shifting sands – by wind or water.

9. Name five species (scientific names) of plants characteristic of sand dunes?

1. *Pink Purslane* *Portulaca pilosa*

2. *Spurred Butterfly Pea* *Centrosema virginianum*

3. *Texas Milkpea* *Galactia volubilis*

4. *Bitter Panicgrass* *Panicum amarum*

5. *Short-Leaf Pine* *Pinus echinata*

10. How are swamps and marshes similar?

They both are a place for filtration of water and both also smell due to the decomposition of organic matter.

11. What characteristics allow for plants, such as Batis, to tolerate high salt concentrations in the soil?

12. How do savannas differ from Midwestern prairies?

Savannas also contain scattered communities of slash pine.

13. Name five herbaceous plants common to both the gulf coastal region and Kansas.

1. *Spiderwort*

2. *Cottonwood*

3. *Wild Onion*

4. *False Garlic*

5. *Yellow Star Grass*

14. Why are estuaries important to humans?

They act as a filter, a natural gas system, and contain an abundance in food source.

15. Name eight woody plants that are characteristic of both the gulf coastal region and Kansas.

1. *Cottonwood*

2. *Oaks*

16. Name five birds characteristic of the gulf shoreline.

1. *Laughing Gulls*

2. *Brown Pelican*

3. *Pileated Woodpecker*

4. *Red-Eyed Vireo*

5. *Dowitzer*

17. Name five invertebrates (specific common name) characteristic of the gulf coast.

1. *Mole Crab*

2. *Blue Crab*

3. *Horseshoe Crab*

4. *Sand Dollar*

5. *Portugeuse Man-of-War*

18. Explain in detail why marshes may smell like rotten eggs?

The smell is caused by the anaerobic decomposition of organic matter.

19. Name eight animals, mammals or birds, common to both the gulf coastal region and Kansas.

1. *Great Blue Heron*
2. *Common Grackle*
3. *American Robin*
4. *Northern Cardinal*
5. *Mallard*
6. *European Starling*
7. *House Sparrow*
8. *American Kestrel*

20. What are the adverse affects of bulkheads?

They provide surface area for encrusting organisms.

Sat. Mar. 20 2004

left at 8:30

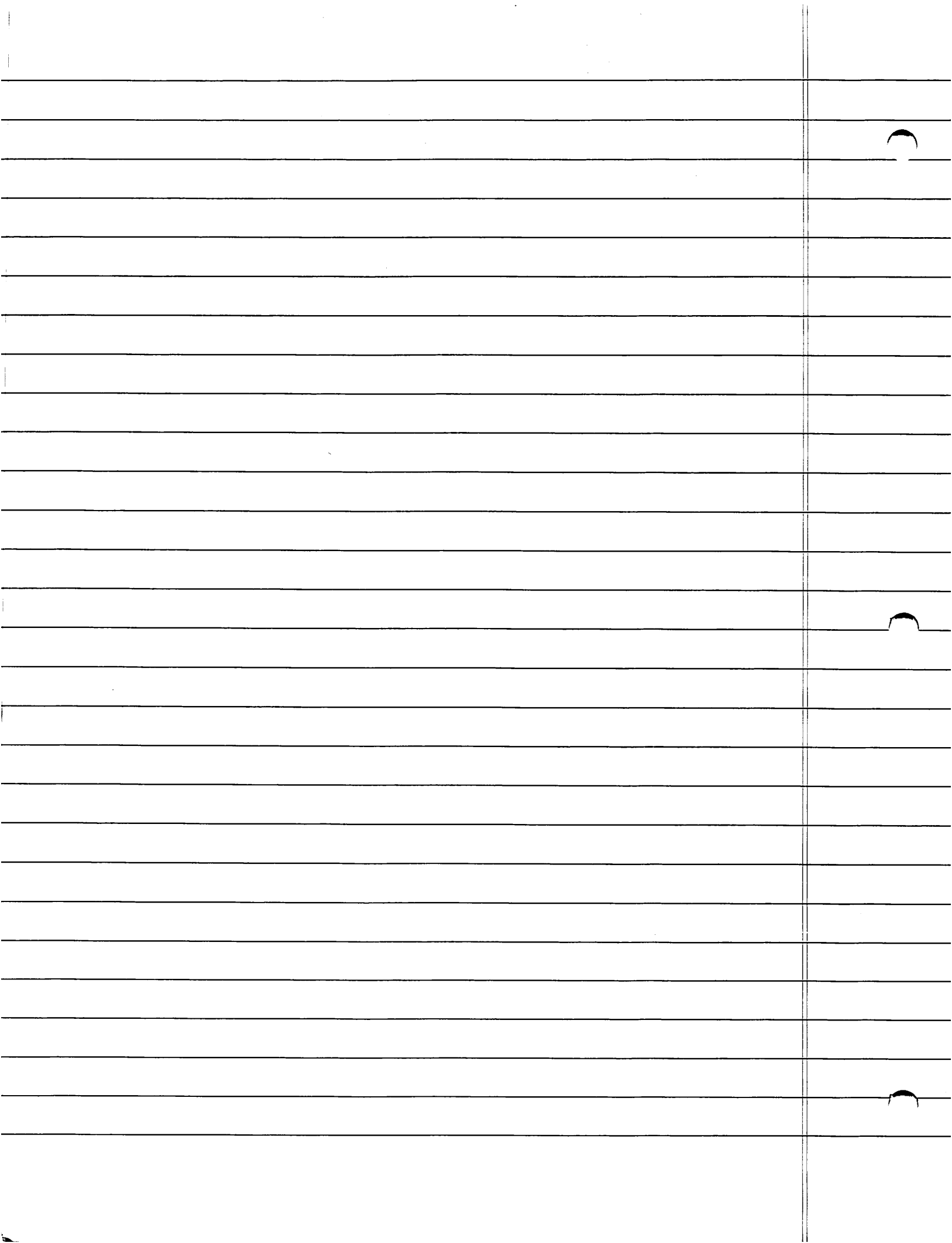
Mammoth Springs - ate lunch - left at 2:00 pm (Spring River). Arkansas

- crabs
- muskrat
- heard some American Toads
- geese
- gray squirrels
- Turkey Vultures
- mallards
- trout fishing
- pigeon
- American Robin

We were supposed to camp at Fuller State Park in Memphis, TN, but due to heavy rain activity we decided to try to beat the rain & hopefully try to not get in the path of the rain - but it seems we may get rain tonight after all (wind is picking up, sky is getting cloudy, lightning in the horizon). I saw some nice things today - mainly sites & sounds. We stopped at Mammoth Springs State Park - it has a natural spring upwelling - saw some trout fishermen - wish I was them. - We stopped there for lunch - there was a hatchery there - wish I had gone to see it - "GREAT... IT'S RAINING...!" This is the farthest east I have ever been & everyday after that I'll be getting farther & farther. We are currently in Holms County State Park - our alternate destination (camping site). It's kind of awesome to hear the Spring Peepers in the background & the sound of raindrops on our tent (I'm bunking with Dr. Triplett).

Holms County State Park, Mississippi

- Spring Peepers



Sun. Mar. 21. 2004

left campsite around 7:45 am (Holms County State Park)

I noticed a lot of ecological changes in geological systems. Kansas was flat - Missouri began to look more hilly - Arkansas was even worse - & then it suddenly got very flat again - flat region was known as the Mississippi River flood plains.

- saw a tree farm - all of them were conifers. (White Pine).

- swamp areas next to road (could make excellent place for duck hunting!!)

- Bamboo shoots & trees

- Saw Palmetto: small type of palm tree.

- we stopped in Magee, Mississippi at Wal-Mart for some goods (groceries, etc). 10:30 am

- Dauphin Island, Alabama

- Brown Pelicans

- Mallards

- Anchovies

- Cormorants

- Greater Egret

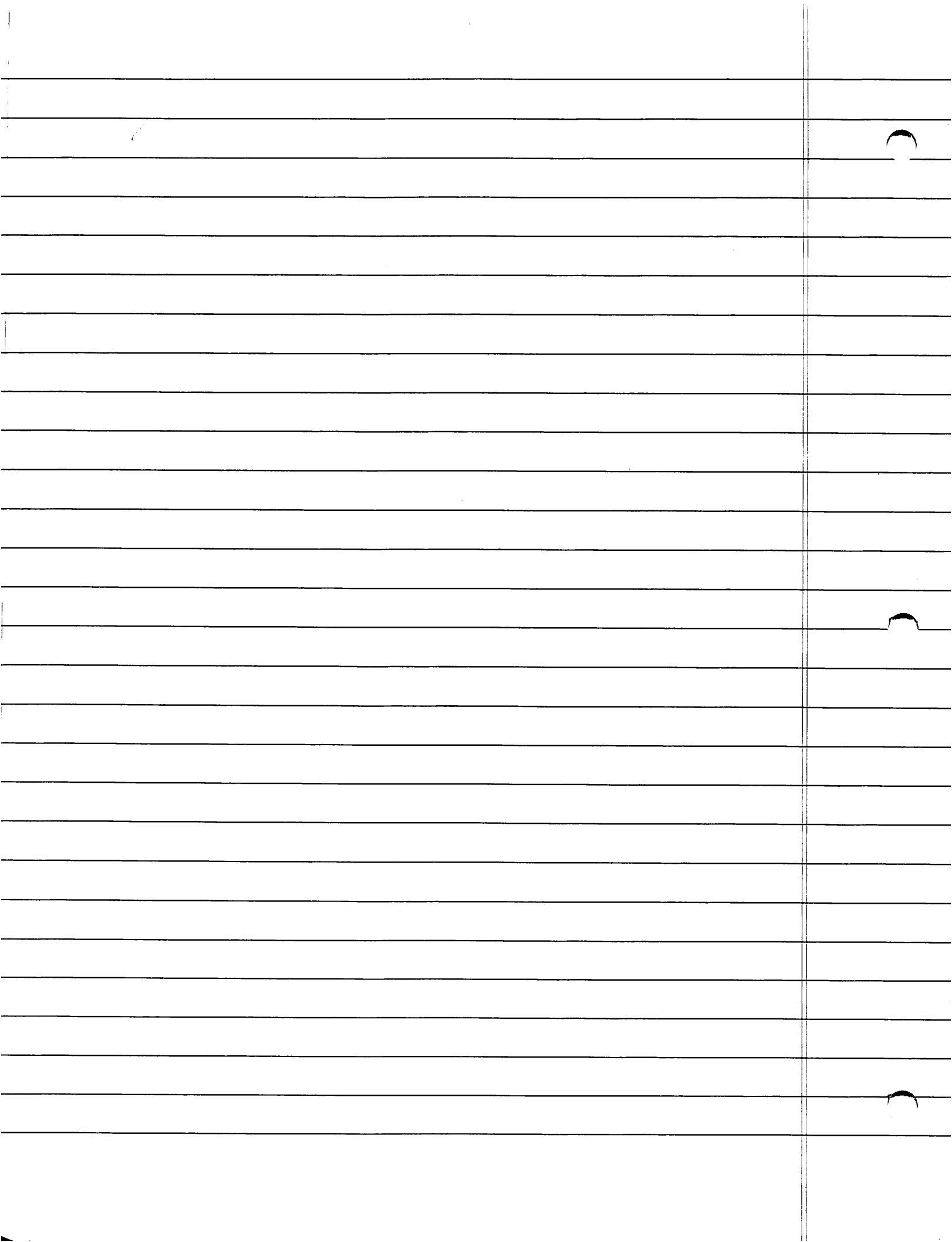
- Gambusia

- Laughing Gulls

- Blue Crab

- Sailfin Molly

we are finally here at Dauphin Island. I really like this place. I love the ocean (if only I could swim). We set up camp & had tacos for dinner (It was delicious). After dinner we went to see the docks where the ferry is at. We captured maybe close to 10 species of fish. We actually got three out of a ditch - which to my amusement - didn't expect to see anything in there. The trip down here was long - but with great patience comes great things. The people seem to be getting along. Saw the swamps before we got into Dauphin Island - crossed the bridge. Tomorrow is going to be another day - I can't wait (Estuarium & Shrimp Trawl) It is going to be fun!! I am going to go key out fish now. FUN FUN!!



Dauphin Island, AL Mar 21, 2004 Gulf of Mexico

- Ditch North of campground

- Gambusia affinis Mosquitofish
- Peecilia latipinna Sailfin Molly
- Dormitator maculatus Fat Sleeper

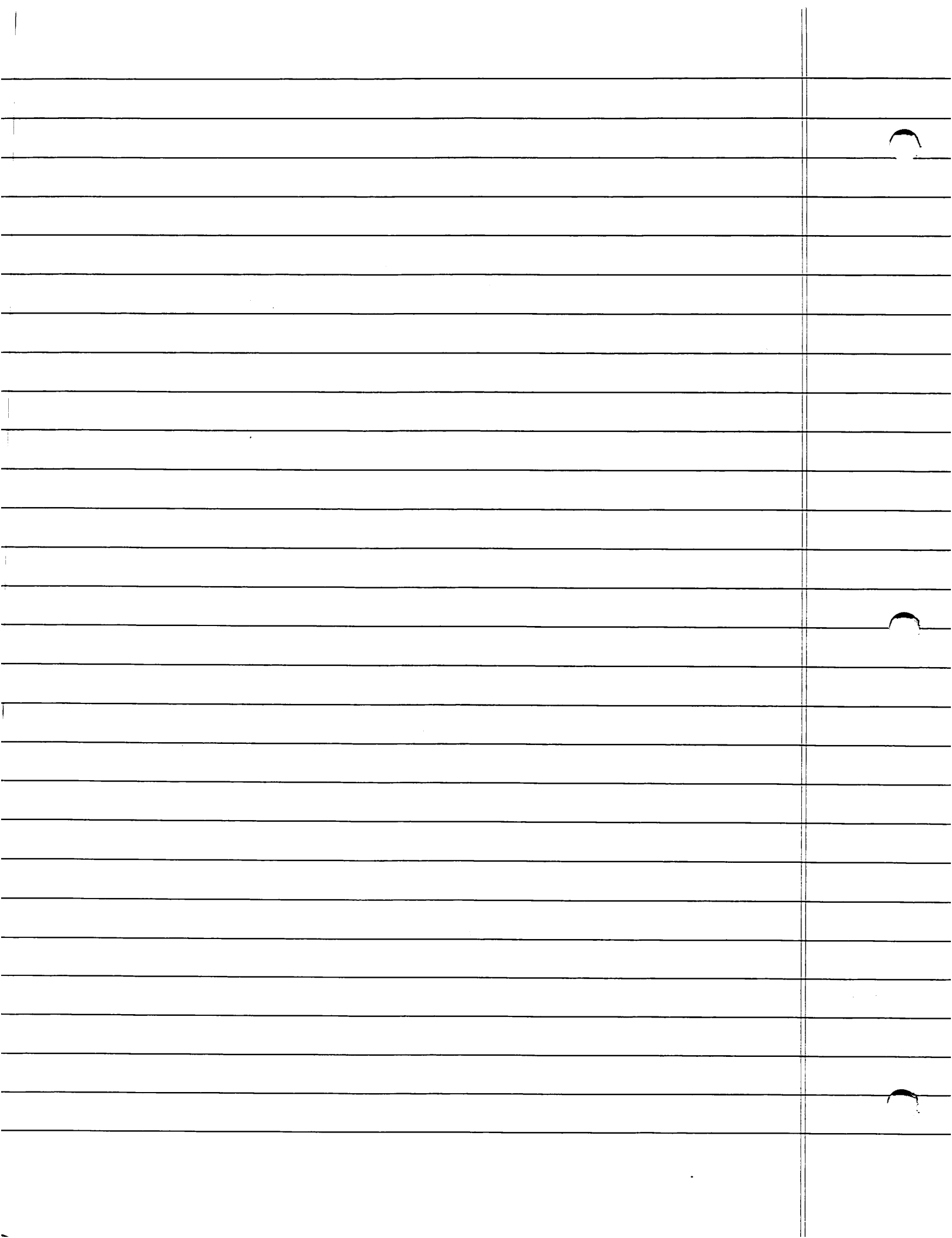
- North Docks

- Symphurus plagiura Blackcheek Tonguefish
- Larimus fasciatus Banded Drum
- Anchoa mitchilli Bay Anchovy
- Bairdiella chrysoura Silver Perch
- Brevoortia patronus Gulf Menhaden
- Bathygobius soporator Frillfin Goby
- Myrophis punctatus Speckled Wren Eel
- Gobionellus boleosoma Darton Goby
- Mugil curema White Mullet

Dauphin Island, AL Mar 22, 2004

- South Beach of Campground

- Ophidium notshi Crested Cusk-Eel
- Menticirrhus americanus Southern Kingfish
- Paralichthys squamilentus Broad Flounder
- Leiostomus xanthurus Spot; Flat Croaker
- Menticirrhus littoralis Gulf Kingfish
- Astrus scopus y-graecum Southern Stargazer
- Citharichthys spilopterus Bay Whiff
- Dasyatis sabina Atlantic Stingray



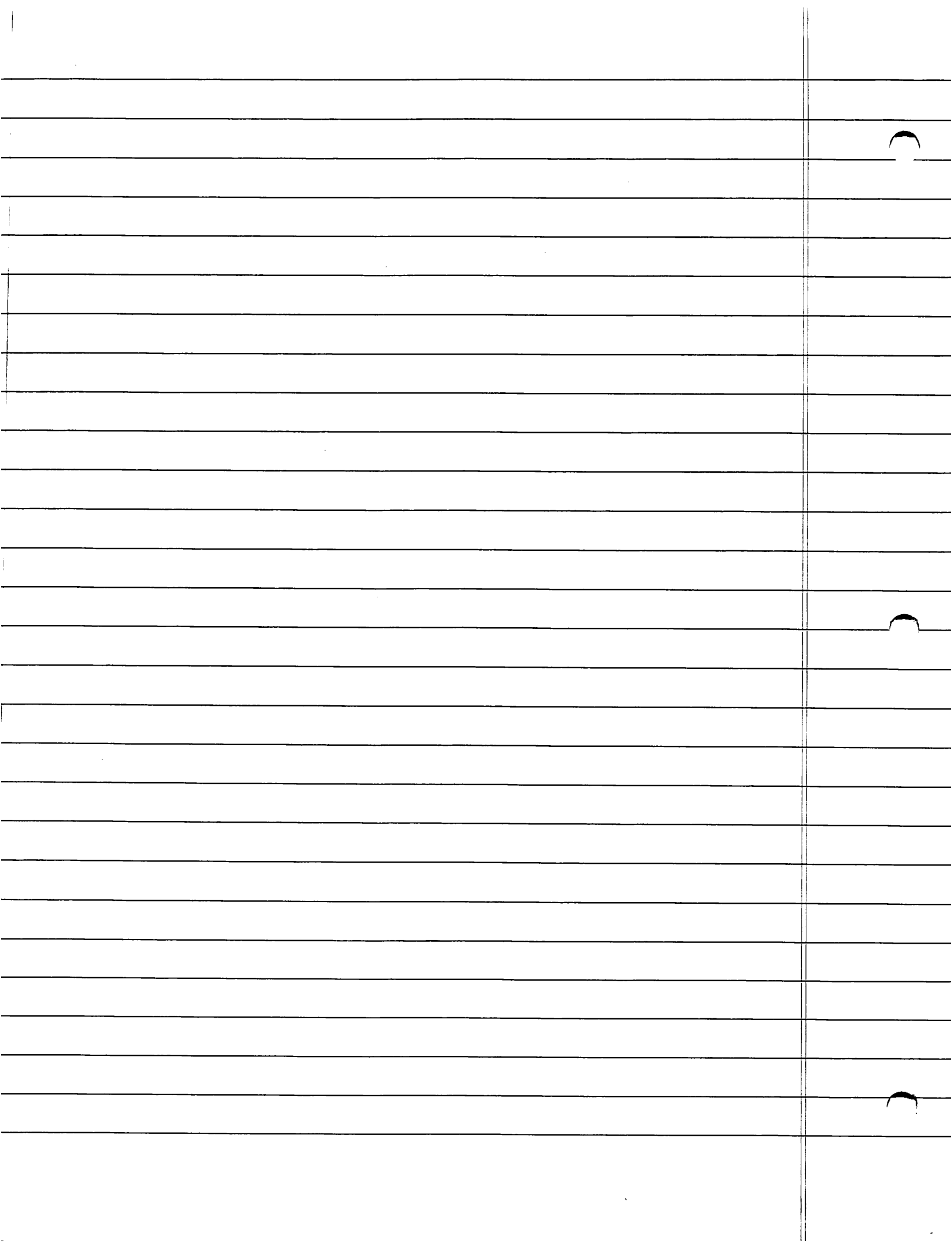
Monday Mar 22 2004

- Dauphin Island, AL

today we did a lot of keying out of fish. I thought it was fun trying to figure everything out. We had a total of 12 species. (Manning)

- | | | |
|------------------|-----------------|----------------------------|
| - Fat Sleeper | - Darted Goby | - Speckled Warm Eel |
| - Mosquito Fish | - Bay Anchovy | - Black-Checked Tonguefish |
| - Saltfin Milly | - Gulf Menhaden | - Silver Perch |
| - Killifish Goby | - Banded Drum | - White Mullet |

After we keyed out the fish today, we went to the Sealand (Estuarium). WOW!! They have some kool things in there - so many awesome species of fish - some I have seen before (just not ever that close up) & many never heard of or seen. I bought a new book today - it's a keying book - something that I needed (Fish of the Gulf Coast). It is a good book - well written & describes fish in good detail. After lunch we went to seine the South Side Beach. I really enjoyed that - it wasn't too windy when we finished - We caught at least 6 or 7 new species of fish. The best thing we caught was that Atlantic Stingray - it looked awesome - first wild one I have ever seen before. We keyed some of these fish. These new ones are a little bit tough to key out. It is going to take me a while. After keying (not finished keying) I went with Josh, Gabe, Herman, & Sara to go fishing - we didn't really fish - but I caught a new species of fish (looks kind of like a killifish). We didn't fish because of the low tide & windy conditions. We didn't end up going on the trawl due to conditions but tomorrow we are definitely leaving at 1:00 pm. I can't wait - that was something I have always wanted to see done & I get to be on a ship on the ocean! YES!! Today was an awesome day - can't wait till tomorrow.



Tuesday Mar 22, 2004

- Dauphin Island, AL

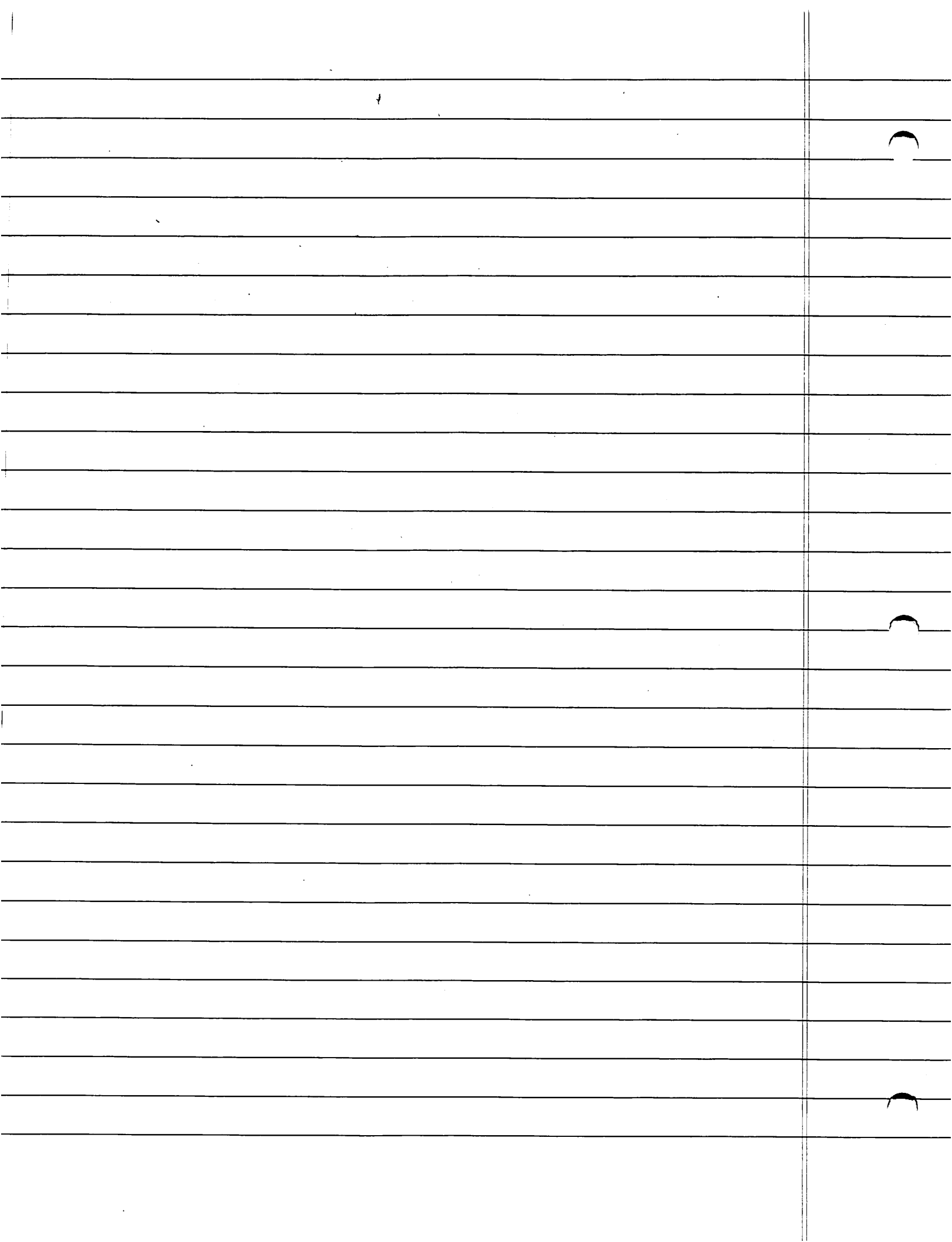
Today I got up around 6:00 am - WHY - because it is our turn (me, Ron, Josh, Leslie) to be the cook crew. I set out the breakfast & allow people to get their breakfast - after that we have to pick everything back up - same goes for lunch & dinner. Today is the day for the trawl & Sarah McCoy is going on an Audubon Trail bike - spoke to her a lot of awesome birds down here - I haven't decided if I am going to go or not at 8:30 am. The sun is coming up from the East & it is starting to get warmer. After breakfast we went on the Audubon Trail hike:

- Osprey - Southern Toad - Carolina Wren
- Warbler - Squirrel Tree Frog
- Northern Cardinal - American Alligator

We saw birds & herps. I had fun let alone some exercise. Saw some beautiful, yet odd-looking animals. After lunch we went on the trawl at about 1 pm. I was very excited about it. A guy kind of gave us a presentation - and after about 45 minutes the first haul came in - we didn't get too much things. I was surprised to see that because the grad students said - the last time they came the table was overflowing with fish - 100 upon 100 of fish - I didn't see that at all today. We did 2 more other pulls & got about the same species.

- Sea Robin - Southern Hake - Hardhead Catfish
- Black Drum - Ocellated Flounder
- Striped Anchovy - Gulf Butterfish

The Black Drum was huge - I was excited when I saw that thing. We also saw some dolphins & hauled up a lot of squid. We can back & forward the camp - I would like to go to school there - but it seems cost of living is too high here. After Chicken Fettuccine dinner (very Good!!) Ron, Josh, & I went to dipnet some fish - we ended up with a couple new species & one from the ditch again.



Dauphin Island, AL Mar. 21, 2004

- SE to campground next to the Jetty along beach.

- Fundulus majalis Striped Killifish.

- Cyprinodon variegatus Sheepshead Minnow

- Brevoortia smithi Yellowfin Menhaden.

Dauphin Island, AL Mar. 22, 2004

- Mobile Bay; East of Campsite - Boat Trawl

- Peprilus kurti Gulf Butterfish

- Urophycis regia Spotted Hake

- Anchoa hepsetus Striped Anchovy.

- Arius felis Hardhead Catfish

- Pagonias cromis Black Drum

- Prionotus tribulus Bighead Searbin.

- Ancylopsetta quadrocellata Ocellated Flounder

Dauphin Island, AL Mar. 22, 2004

- Ditch North of Campground

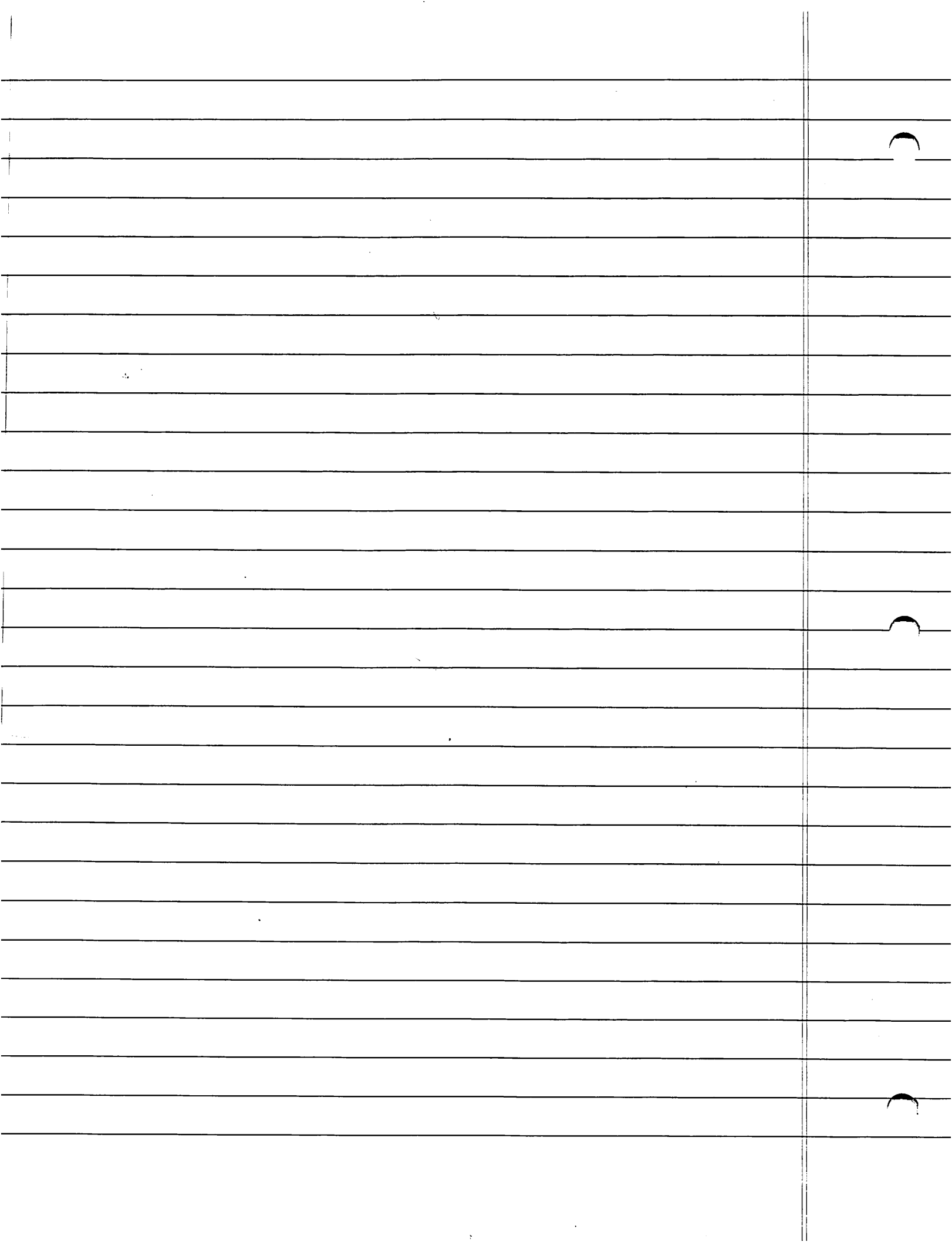
- Fundulus pulvereus Bayou Killifish

Dauphin Island, AL Mar. 23, 2004

- under docks N. of campground.

- Fundulus grandis Gulf Killifish

- Gobiosoma bosc Naked Gobie.



Dauphin Island, AL Mar. 24, 2004

- West Beach & Airport Marsh

- Adinia xenica Diamond Killfish.

- Lagodon rhomboides Pinfish; Pin Perch.

- Menidia beryllina Inland Silverside.

- Sciaenops ocellatus Red Drum

- Front Beach South Side.

- Membras martinaca Rough Silverfish.

- North Docks & Campground. (NIGHT)

- Opsanus beta Gulf Toadfish.

- Archosargus probatocephalus Sheepshead.

- North Ditch on Roadside

41.

- Eleotris pisonis Spinycheek Sleeper.

Dauphin Island, AL Mar. 25, 2004

- Fundulus jenkinsi Saltmarsh Topminnow.

- Marine Resource & Conservation Trawl

- Sphaeroides parvus Least Puffer

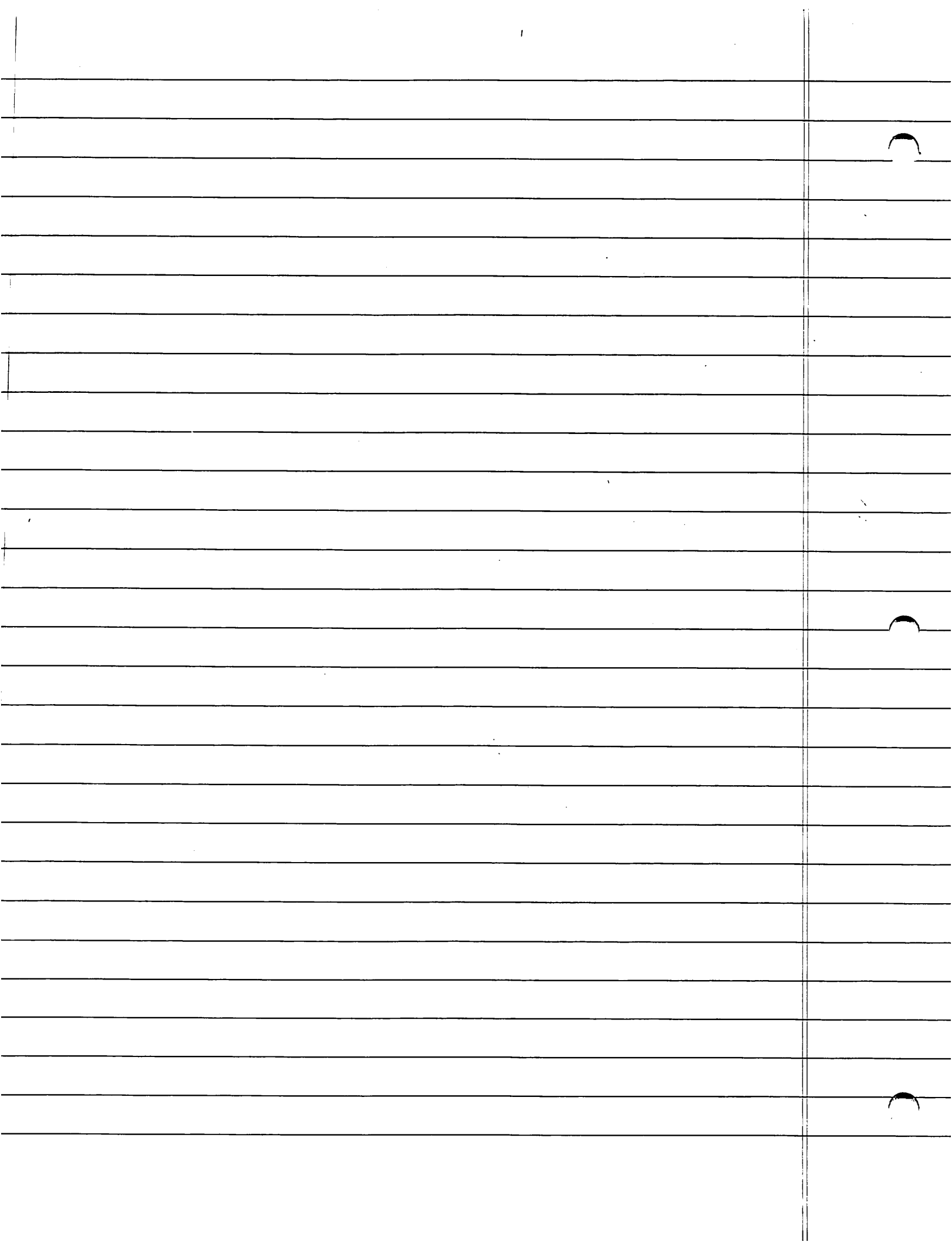
- Trichiurus lepturus Atlantic Cutlassfish.

- Steilifer lanceolatus Star Drum

- Urophycis floridana Southern Hake

47.

- Etheus crossotus Fringed Flounder

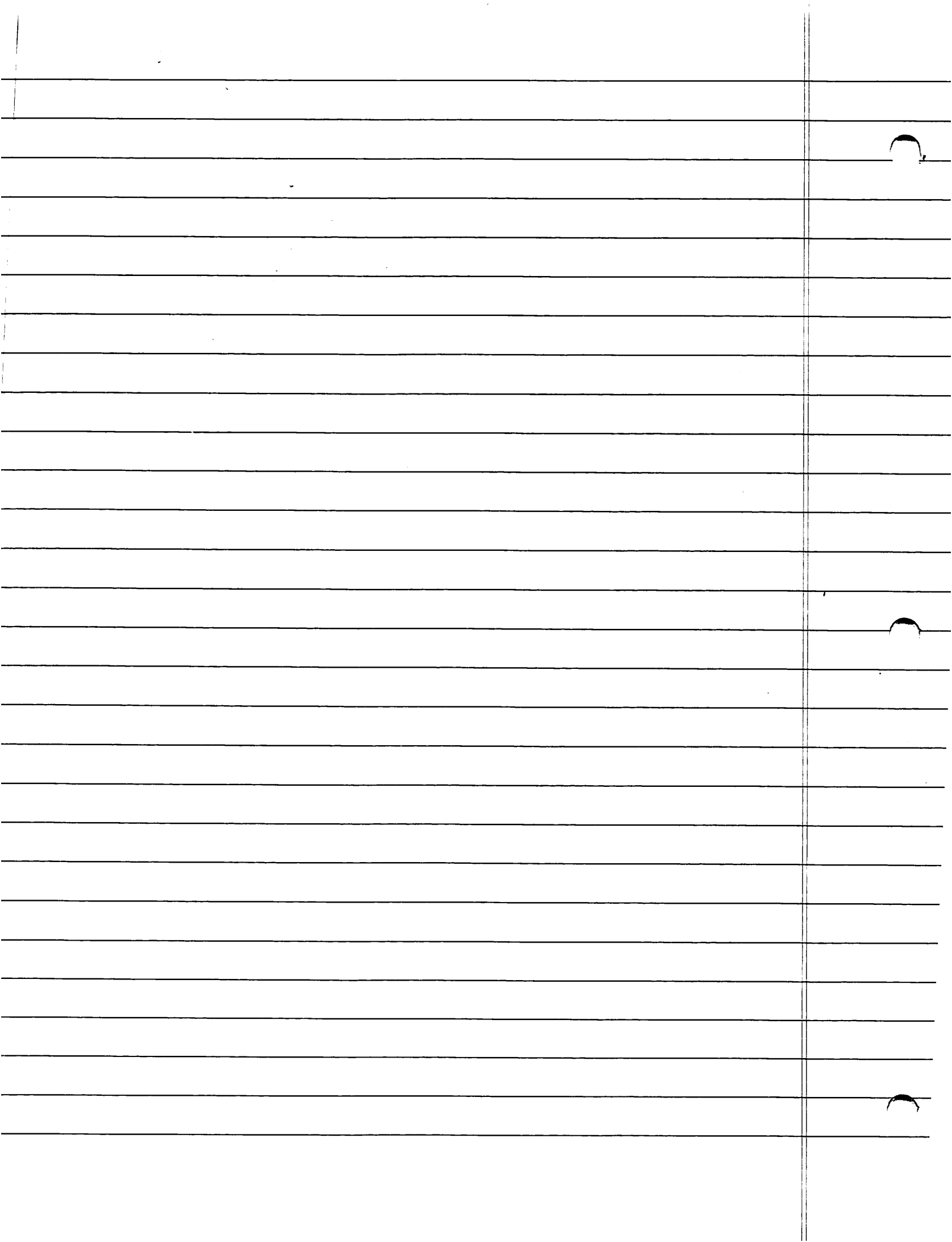


Wednesday Mar. 24, 2004

Today in the morning we woke up & had breakfast. We went to check out Ft. Granger. That place looks good. I enjoyed seeing the history of the US. especially at a fort where real people actually lived & died at. It must of been hard living back then living in the same country, but yet at war (neighbors at war). I saw the cannonball hit the west side of the wall; it left a big indentation in the wall - surprised it did not go through. After that; Ron, Travis, Mark, & I went to see the docks at the Sealab or next to the sealab. We ended up with some reports:

- Darter Colony
- Naked Goby.

We then had lunch & after that went to see. We first stopped off at Shell Mounds. It used to be an Indian Burial Ground. Many Indians brought their dead down here to bury. Many women still come there & mourn or give prayers. We also saw what thought to be the Marriage Tree. There used to not be a church to get married in so they designated a tree to partake in that operation. Also saw what considered to be one of the oldest living trees on the island (that tree was massive with all those spanish moss hanging from it.) Also saw a green anole - it started doing push ups



Dauphin Island, AL March 25, 2004

- Fishing Pier at Causeways

- Ophichthus gomesi Shrimp Eel.

- Beach at Causeway of Mobile Bay.

- Trinectes maculatus Hogchoker

- Gobiosox strumosus Skilletfish

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- Paralichthys lethostigma Southern Flounder.



