BIO 183 LAB SIGN OFF PAGE — UNIT 11

Name _______________________________

Please staple all of your lab pages for this Unit together with this page as the top You will use this page to get your Labs for Unit 11 signed off by the Biology Learning Center staff You need to have all of the following steps initialed by a staff member before you can receive your 25 labs points for Unit 11 and be allowed to take the Unit 11 Exam.

After you have obtained all of your sign offs for this Unit, be sure that a BLC staff member indicates on your Lab Card that you are OK to take the Unit 11 Exam. Also, keep this sign off page, along with your completed lab worksheets, as proof of your lab completion If your Lab Card indicates that you have not completed the required Labs for this Unit and you believe that you have, it is up to you to provide proof that you have indeed completed the Labs. Keep this page!

__________ Unit 11, Step 2A: “Simbio Virtual Lab: Keystone Predator” Lab Activity

__________ Unit 11, Step 2B: “Simbio Virtual Lab: Keystone Predator” Lab Activity

*BLC Staff: After the student receives his/her last initial on this page, please indicate on his/her Lab Card that s/he is OK to take the Unit 11 Exam.
**STEP 2: WORKSHEETS FOR “SIMBIO VIRTUAL: KEYSTONE PREDATOR” LAB ACTIVITY**

For lab points, do the lab activity entitled “Simbio Virtual: Keystone Predator.” This lab must be done in the Biology Learning Center. The EcoBeaker manual with instructions for this activity is located on the shelf below Model S (the cat skeleton) in the Biology Learning Center for use in the Biology Learning Center. While you read the instructions and run the simulations, you will answer the following questions. The instructions will tell you when to take your worksheets to the front desk in the Biology Learning Center for lab checkoff.

1. **What is a keystone predator?**

2. **Describe the observations you make as the simulation runs. Does the ecosystem seem relatively stable over time? How many different types of organisms are present?** [This is a rough estimate of the diversity of the ecosystem.]

3. **If there were no organisms present, which species (or group of species) do you predict would be the first to settle on the bare rock and how quickly would this happen?**

4. **Record your observations. These observations should include the names of the species that first settled on the bare rock and how quickly it happened.**

**PLEASE BRING YOUR WORKSHEETS TO THE FRONT DESK IN THE BIOLOGY LEARNING LAB FOR THE FIRST LAB CHECKOFF.**

(Bio 183, Unit 11, Step 2A)
5. Based on your observations so far and on the species descriptions above, make a prediction regarding what will happen when each species of predator is removed.

6. Describe what happened when *Nucella* was removed from the ecosystem, and describe what happened when *Nucella* was added back. How many species were present after *Nucella* was removed?

7. Describe what happened when *K. tunicata* was removed from the ecosystem, and describe what happened when *K. tunicata* was added back. How many species were present after *K. tunicata* was removed?

8. Describe what happened when *Pisaster* was removed from the ecosystem, and describe what happened when *Pisaster* was added back. How many species were present after *Pisaster* was removed?

9. In the absence of all predators, which of the stationary species is probably the best competitor for limited space in this intertidal area?
10. Which predator had the biggest impact on diversity [the number of species present after the predator was removed]? Which species is the keystone predator?

11. What did you learn from this lab activity?

BRING YOUR WORKSHEETS TO THE FRONT DESK IN THE BIOLOGY LEARNING LAB FOR YOUR LAB CHECKOFF.

(Bio 183, Unit 11, Step 2B)