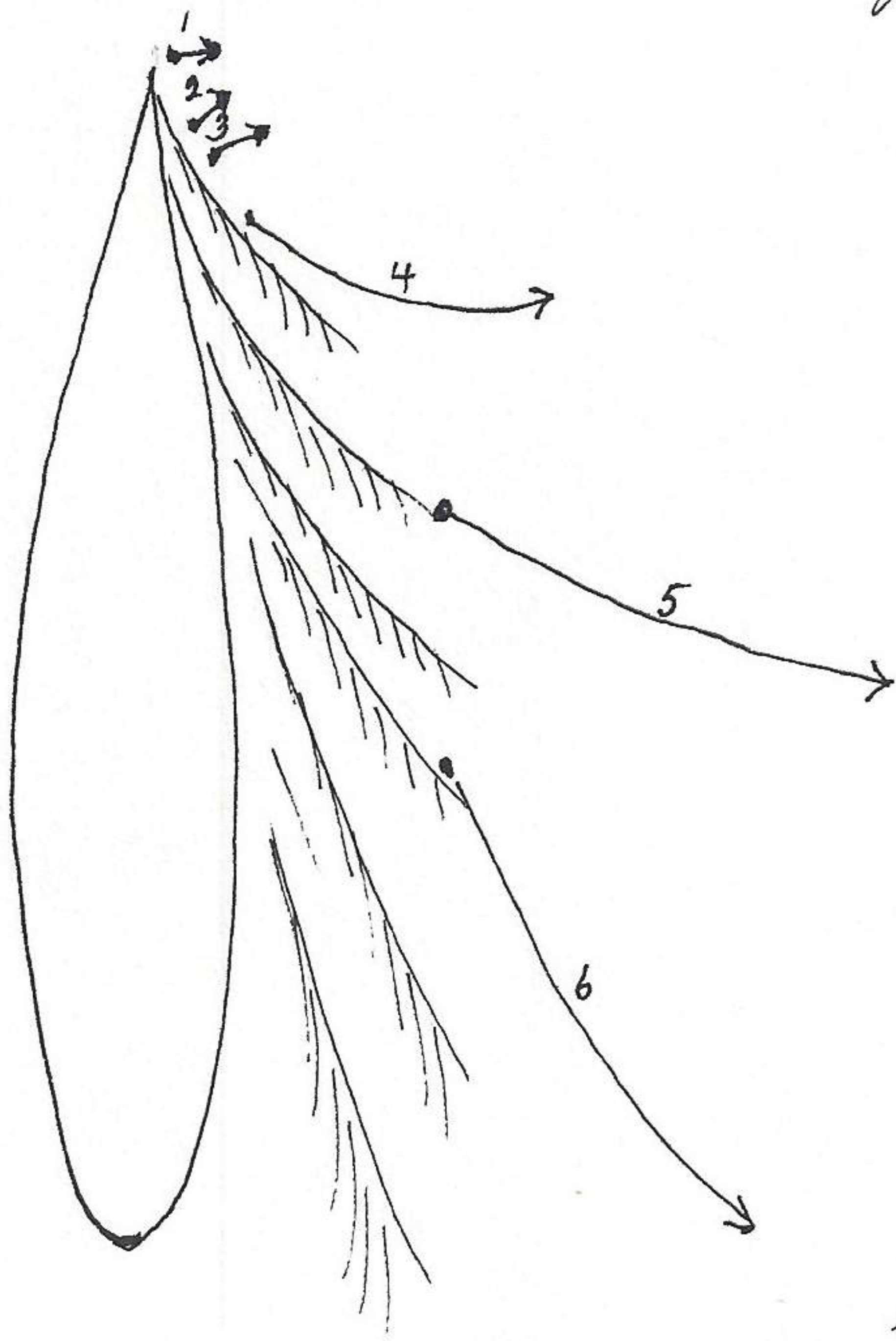


disturbed fish also produces the phosphorescence.



As the ship moves thru the water it created a series of waves forming laterally from the axis of the ship. Flying fish (no. 1) leaving from the bow of the ship are forced out of the water. They dart immediately back into the undisturbed water. Nos 2 and 3 are also forced out of the water by the bow of the ship and are in complete confusion. They plunge back into the water at about 15' distance from the bow where they dart around in wild frustration. A few of these leave the water again but sail only a few feet and again plunge back into the sea. Fish in position no 4 leave more wilfully and generally record a respectable flight.

However, as they rise clear of the ship they see the boat and turn to the left to evade it. The wake at this point traps many of them and churns them over a few times before they settle back into the water. Some are directed straight upward as the overturned edge of the wave strikes them. At this moment they vibrate in midair as if ignoring gravity. In positions 5 and 6 they leave under control and enjoy long flights (sail). The flight time varies from a fraction of a second to 12 seconds. Five seconds for small fish and 10-12 seconds for large fish. They leave the water with a vigorous vibration of the tail and body and possibly the use of wings for a few seconds or 12 feet. Once in the air (2 feet) the fins are held stationary with the body rigid. The angle of the wings (fins) varies as the fish changes direction. Flight or sail straight in most of the cases. As the fish touches water, the tail goes into motion at the very tip and the additional force accelerates the flight and the fish continues airborne. There is some adjustment to elevation to evade waves but most of the time they either are stopped by running into a wave or by wilfully entering the water between waves. The greater number of fish leave at the bow of the ship on a ratio of 8 to 1 of those that leave elsewhere. Groups vary from singles to 20. Distribution is local with fish leaving continuously for 2 or 3 minutes, a decided increase over the usual general distribution. At 4:45 P.M. counted 5 singles in 1 minute. Fish are observed sailing beyond influence of boat, some fly into boat (side of boat),