

## Lobster Bait

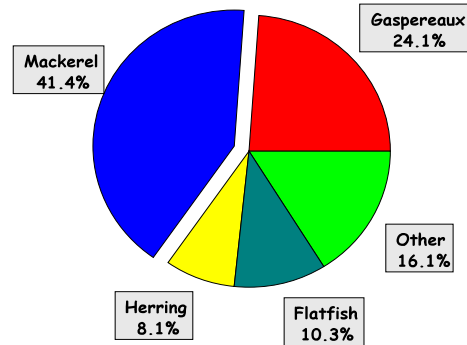
In a study conducted between May and July 1997 in Prince Edward Island, a list of fishing and handling practices which may significantly impact lobster health before, after holding, or prior to processing and marketing was established. Fishing and handling practices were monitored on 53 lobster boats from 11 different fishing ports, while a total of 1,672 lobsters were examined.

Among the findings of this study, Lobster Bait appeared to carry a major impact on lobster vigour, or weakness, upon arrival at processing plants. *Lobsters landed from boats using fresh mackerel bait were more than 7 times more likely to be weak when arriving at the processing plant compared to lobsters landed from boats using alternative baits.*

The biological or physiological explanation for this phenomenon is not clear. Mackerel is known to contain high levels of the amino acid histidine,<sup>1</sup> which produces significant amounts of histamine during bacterial decomposition.<sup>2</sup>

This bacterial decomposition is likely to occur with any fish carcasses left unrefrigerated for extended periods. Perhaps histamine present in lobster baits adversely affects the health of harvested lobsters. More recently, it was demonstrated that small amounts of paralytic

shellfish poisoning (PSP) toxins were found in the Atlantic mackerel.<sup>3</sup> Therefore, it is conceivable that the slight accumulation of toxins related to paralytic shellfish poisoning in mackerel may also influence lobster health.



Types of bait used during the 1997 spring fishing season survey in PEI.

<sup>1</sup> Nemetz TG & Shotts Jr EB . 1993. Zoonotic diseases. In: Stoskopf MK Ed. Fish Medicine. Philadelphia: WB Saunders Company, 214-220.

<sup>2</sup> Barancin et al. 1998. Plasmid-mediated histamine biosynthesis in the bacterial fish pathogen *Vibrio anguillarum*. Plasmid.. 39: 235-244.

<sup>3</sup> Castonguay et al. 1997. Accumulation of PSP toxins in Atlantic mackerel: seasonal and ontogenetic variations. J. Fish Biol. 50: 1203-1213.

- **The use of different Baits influences lobster vigour; mackerel is especially detrimental.**
- **Fishing practices using mackerel as bait should be discouraged.**

