

Staff Statement  
On Destruct Device for Lost Crab Pots  
For Public Hearing August 20, 1982

Problem

Crab fishermen and the Oregon Dungeness Crab Commission have requested that crab pots be required to have a "destruct" device so crabs can escape from derelict pots.

Background

A destruct device in crab pots was discussed in the 1974 State-Federal Fisheries Management Program report. The subject was addressed again in the 1979 draft fishery management plan of the Pacific Fisheries Management Council. Industry advisors were not in favor of such a device. Minimum performance criteria were developed, but no acceptable devices were produced.

The Fishery

In 1981, 126,000 crab pots were fished off the Oregon coast compared to 55,000 in 1974. Staff estimates an average annual loss of 15% which would have been about 19,000 pots in 1981. Although we do not know what percent of the lost pots continue to fish, how long they fish, or at what rate they catch crabs, but we do know that the catch can be substantial. In 1970, 117 abandoned crab pots were retrieved off Cannon Beach, Oregon. The pots had not been pulled for at least 30 days. They contained 3,629 crabs of which 91% were legal males.

Other States

California requires a destruct device in crab pots, but no such device has been approved by California Fish and Game. Alaska requires a destruct panel in king crab pots.

### Industry Views

Crab fishermen in the past have not favored a destruct device citing lack of need, additional expense and bother, and that many pots were being salvaged. However, on June 21, 1982 the Oregon Dungeness Crab Commission moved to ask ODFW to study destruct devices, namely, lid hooks and/or hook attachments made of cotton. Fishermen also expressed this notion at the June 18, 1982 commission hearing in Portland. Staff is interviewing fishermen to establish a consensus and will report a summary at the August 20 commission hearing.

### Destruct Devices

Several types of destruct devices have been considered including degradable escape ports, side panels, tunnel triggers and lid hooks. Most are too expensive, take too long to install, or are too complicated and are subject to premature failure. Iron lid hooks and a cotton string attachment between hook and rubber stretcher have been tried by a few fishermen, but adequate testing has not been done.

Discussions between biologists and fishermen in 1974 resulted in the following criteria for destruct devices. The devices must:

1. Last 3 to 6 months
2. Be able to be installed quickly and securely without changing basic pot design.
3. Not increase galvanic or corrosive properties of gear.
4. Be inexpensive (a few cents each).
5. Withstand wide temperature and salinity range.
6. Be readily identifiable for enforcement purposes.
7. Be field tested.

For convenience, a built-in indicator could reveal when the device needed to be changed.

### Discussion

Loss of crab pots and crabs has not been a major concern. In recent years, with a dramatic increase in number of boats and pots, there is concern. A downward trend in harvest and hard economic times has brought the problem into sharper focus. Any reasonable solution to reduce losses is worth a try.

Criteria developed earlier for destruct devices may have to be modified, but basically the device must be inexpensive and easily and quickly attached. Recent discussions with a few fishermen indicate that iron lid hooks and/or a cotton stringer between hook and rubber stretcher are most promising.

However, adequate testing needs to be done so that once a device is adopted there will be uniformity in its use and effectiveness. We talked with a metallurgist who described how an alloy could be developed to last as long as needed. We plan to explore further, ideas from fishermen and to seek expert advice on materials and design. Field tests would then be conducted under fishing conditions.

### Recommendation

Staff recommends that no action be taken until a device has been developed and tested.

Oregon Department of Fish & Wildlife  
Marine Region