HB

43

HOUSE COMMITTEE REPO T

(9)
Date Referred to Committee: February 27, 2009 **FURTHER REFERRALS:**

Date of Committee Action: 3/23/09

The RESOURCES Committee considered: **HOUSE BILL NO. 43**

"An Act relating to aquatic farm permitting involving geoducks and to geoduck seed transfers between certified hatcheries and aquatic farms."

HB 43 GEODUCK AQUATIC FARMING/SEED TRANSFER

Recommends it be replaced with [ ] HCS *or* **[ ] CS** *for* _____ (_____)
For Senate Bills with new title: [ ] Technical Title [ ] New Title: HCR_____ **[ ] Same Title [ ] New Title**

[ ] attach amendments
[ ] add new referral to _____Committee
[ ] Letter of Intent_____Committee

List of Abbrev for Depts.:
ADM
CED
COR
CRT
EED
DEC
DFG
GOV
DHS
LWF
LAW
LEG
MVA
DNR
DPS
REV
DOT
UA

NEW **FISCAL NOTES** *Assigned by Chief Clerk's Office				
List by Dept(s):	*FN#	Fiscal	Indet.	Zero
DFG				✓

PREVIOUS **FISCAL NOTES**				
List by Dept(s):	FN#	Fiscal	Indet.	Zero

Signing with recommendations	Printed Last Name	DP	DNP	NR	AM
	OLSON			✓	
	GUTTENBERG				
	TUCK	✓			
	STRAWDERMAN				
	Seaton	X			
Peggy Wilson	WILSON			X	
Chair:	Johnson	X			
Chair:					

Alaska State Legislature

State Capitol, Room 102
Juneau, AK 99802
Phone: 465-4389
Fax: 465-3472
Toll Free (800) 665-4389
Representative_Paul_Seaton@legis.state.ak.us

345 W. Sterling Highway
Suite 102B
Homer, AK 99603
Phone: 235-2921
Fax: 235-4008

REPRESENTATIVE Paul Seaton

District 35

Mariculture has the potential to diversify the economic base of coastal communities impacted by the changing dynamics of the fishing industry. HB 43 allows this expansion of this clean water industry by permitting geoducks to be farmed subtidally in the Gulf of Alaska even if wild geoducks are not present. The bill does not exempt farmers from any health, safety, or other transfer provisions relating to hatchery seed.

The Alutiiq Pride Shellfish Hatchery is the only hatchery that supplies mariculture spat and seed in the State. It was initiated by the State to be a self-sustaining operation in association with the private mariculture farms permitted by the State. Their business plan relies on the sale of geoduck seed. However, the informal policy of the Department of Fish and Game prevents geoduck seed from being utilized by farms anywhere outside of southeast Alaska. These restrictions on the sale of geoduck seed cause the sole hatchery for the mariculture industry in Alaska to require continual subsidy by the State. HB 43 will allow the mariculture industry to develop around the Gulf of Alaska, providing a potentially strong market for seed and private sector financing for the operation of the hatchery.

As non-mobile filter feeders, farmed geoducks will not prey on any local commercial, sport or personal use fish. There have been no reports of species displacement in sedimentary habitat by geoduck clams. Farmed geoducks will not interfere with personal recreational boaters as they are cultivated in the sediment below low tide and without the numerous buoys and floating cages used in oyster farms. No infectious disease has been identified in any wild geoduck population or the geoduck farming industries of Washington, British Columbia, or Alaska.

The conflict surrounding geoducks in southeast Alaska is between the dive fishermen who harvest wild stock and farmers who wish to farm in areas with existing wild stock. HB 43 would evade this conflict because there is no wild stock in the proposed area. This bill will not override any Department of Natural Resources farm site leasing or Department of Fish & Game permit regulation.

HB 43 eliminates unnecessary hindrances to the growth of the maricluture industry in Alaska providing a potential alternative economic base for coastal communities while adequately considering the health of our marine ecosystem.

Staff Contact, Katie Koester 465-2028

2/27/2009 HB43/A

3321

LEGAL SERVICES

DIVISION OF LEGAL AND RESEARCH SERVICES
LEGISLATIVE AFFAIRS AGENCY
STATE OF ALASKA

(907) 465-3867 or 465-2450
FAX (907) 465-2029
Mail Stop 3101

State Capitol
Juneau, Alaska 99801-1182
Deliveries to: 129 6th St., Rm. 329

MEMORANDUM January 20, 2009

SUBJECT: Sectional Summary for HB 43 (Work Order No. 26-LS0227\A)

TO: Representative Paul Seaton
Attn: Katie Koester

FROM: Brian J. Kane BJK
Legislative Counsel

You have requested a sectional summary of HB 43, a bill relating to aquatic farming and geoducks.

A sectional summary of a bill should not be considered an authoritative interpretation of the bill. The bill itself is the best statement of its contents.

Section 1 of the bill adds a new subsection to AS 16.40.100 stating that the commissioner may not use the absence of wild geoduck stock within a management area as the basis for a denial of an aquatic farming permit. Also, if the commissioner issues a permit for an aquatic farm for geoducks in a management area that does not have a wild geoduck stock, then that permit shall not allow farming in the intertidal habitat or environment.

Section 2 of the bill adds a new section to AS 16.40 stating that, consistent with AS 16.40.140(b) - (d), a certified hatchery may transfer geoduck seed to an aquatic farm located in a fisheries management area contiguous to the Gulf of Alaska.

BJK:ljw
09-031.ljw

FISCAL NOTE

STATE OF ALASKA
2009 LEGISLATIVE SESSION

Fiscal Note Number:
Bill Version: HB43
() Publish Date:

Identifier (file name): HB043-DFG-CFD-2-24-09
Title: An act relating to aquatic farming permitting....
Sponsor: Representative Seaton
Requester: House Fisheries

Dept. Affected: Fish and Game
RDU: Commercial Fisheries
Component: Headquarters Fish Management
Component Number: 2171

Expenditures/Revenues (Thousands of Dollars)

Note: Amounts do not include inflation unless otherwise noted below.

	Appropriation Required	Information					
OPERATING EXPENDITURES	**FY 2010**	**FY 2010**	**FY 2011**	**FY 2012**	**FY 2013**	**FY 2014**	**FY 2015**
Personal Services							
Travel							
Contractual							
Supplies							
Equipment							
Land & Structures							
Grants & Claims							
Miscellaneous							
TOTAL OPERATING	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
CAPITAL EXPENDITURES							
CHANGE IN REVENUES ( )							

FUND SOURCE (Thousands of Dollars)

1002 Federal Receipts							
1003 GF Match							
1004 GF							
1005 GF/Program Receipts							
1037 GF/Mental Health							
Other Interagency Receipts							
TOTAL	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

Estimate of any current year (FY2009) cost: 0.0

POSITIONS

Full-time							
Part-time							
Temporary							

ANALYSIS: *(Attach a separate page if necessary)*

No department fiscal impact.

Prepared by: Ron Josephson
Division: Commercial Fisheries Division
Phone:
Date/Time: 1/24/09 12:00 AM

Approved by: Tom Lawson, Director
Fish and Game Administrative Services
Date: 1/24/2009

(Revised 9/10.2008 CMB)

FISCAL NOTE

STATE OF ALASKA
2009 LEGISLATIVE SESSION

Fiscal Note Number:
Bill Version: **HB43**
() Publish Date:

Identifier (file name): HB043-DFG-CFD-2-24-09
Dept. Affected: Fish and Game
Title: An act relating to aquatic farming permitting....
RDU: Commercial Fisheries
Component: Headquarters Fish Management
Sponsor: Representative Seaton
Requester: House Fisheries
Component Number: 2171

Expenditures/Revenues (Thousands of Dollars)

Note: Amounts do not include inflation unless otherwise noted below.

	Appropriation Required	Information					
OPERATING EXPENDITURES	**FY 2010**	**FY 2010**	**FY 2011**	**FY 2012**	**FY 2013**	**FY 2014**	**FY 2015**
Personal Services							
Travel							
Contractual							
Supplies							
Equipment							
Land & Structures							
Grants & Claims							
Miscellaneous							
TOTAL OPERATING	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
CAPITAL EXPENDITURES							
CHANGE IN REVENUES ( )							

FUND SOURCE (Thousands of Dollars)

1002 Federal Receipts							
1003 GF Match							
1004 GF							
1005 GF/Program Receipts							
1037 GF/Mental Health							
Other Interagency Receipts							
TOTAL	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

Estimate of any current year (FY2009) cost: 0.0

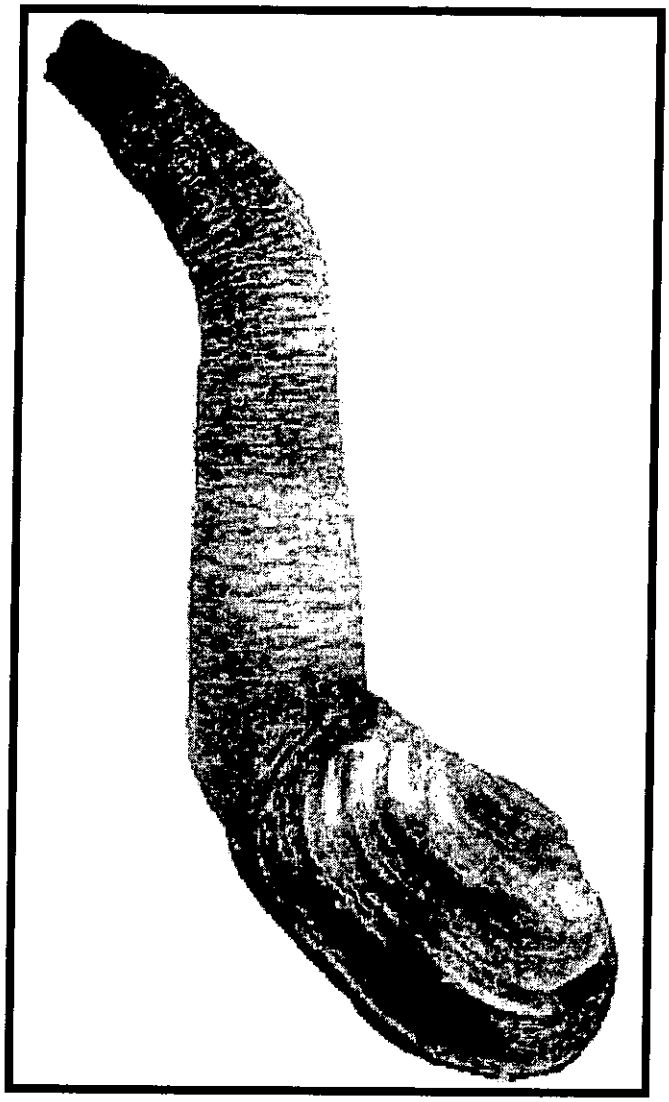
POSITIONS

Full-time							
Part-time							
Temporary							

ANALYSIS: *(Attach a separate page if necessary)*
No department fiscal impact.

Prepared by: Cynthia Pringham
Phone
Division: Commercial Fisheries Division
Date/Time: 1/24/09 12:00 AM
Approved by: Tom Lawson, Director
Date: 1/24/2009
Fish and Game Administrative Services

(Revised 9/10/2008 OMB)

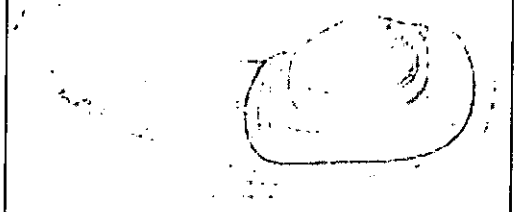


What is a GEODUCK?

HB 43 – Expanding Geoduck Farming

Geoduck

From Wikipedia, the free encyclopedia

Geoduck

Pacific geoduck clam
Scientific classification
Kingdom: Animalia
Phylum: Mollusca
Class: Bivalvia
Order: Myoida
Family: Hiatellidae
Genus: *Panopea*
Species: ***P. abrupta***
Binomial name
Panopea abrupta Conrad, 1849

The **geoduck** (pronounced /'gu:.i:.dʌk/ *i.e.* "gooey duck"[1]), *Panopea abrupta* or *Panope generosa*, is a species of large saltwater clam, also known as the **king clam** or **elephant trunk clam**.

The name is derived from a Nisqualli First Nation word meaning "dig deep", and its phonemically counterintuitive spelling is likely the result of poor transcription. Alternate spellings include *gweduc*, *gweduck* and *goiduck*.

Native to the Pacific Coast of the United States and Canada (primarily Washington, British Columbia, and Southeast Alaska), it is the largest burrowing clam in the world, weighing in at an average of one to three pounds (0.5 - 1.5 kg) at maturity, but specimens weighing over 15 pounds (7.5 kg) and as much as 2 meters (6 ft) in length are not unheard of.

It has a life expectancy of about 146 years, with the oldest recorded at over 160 years. This makes the Geoduck one of the longest-living organisms in the Animal Kingdom. Scientists speculate that the geoduck's longevity is the result of low wear and tear. A geoduck sucks plankton down through its long siphon, filters them for food and ejects its refuse out through a separate hole in the siphon. Adult geoducks have few natural predators, which may also contribute to their longevity. In Alaska, sea otters and dogfish have proved capable of dislodging geoducks; starfish also attack and feed on the exposed geoduck siphon.

Geoducks are broadcast spawners. A female geoduck produces about 5 billion eggs in her century-long lifespan—in comparison, a human female produces about 500 viable ova during the course of her life. It is possible that this fact, in conjunction with the phallic shape of the siphon, has led to the belief that the shellfish has aphrodisiac properties.

Industry and impact

The world's first geoduck fishery was created in 1970, but demand for the semi-forgotten clam was low. Today, they sell in Asia for up to US$30/lb (US$65/kg). The Jumbo clam, like abalone, is highly regarded in Chinese cuisine. Its large, meaty siphon is prized for its savory (umami) flavor and crunchy texture. It is extremely popular in Hong Kong, China and Japan, where it is considered a rare tasty treat. Geoduck is mostly eaten cooked in a fondue-style Chinese hot pot or raw sashimi style, dipped in soy sauce and wasabi. On Japanese menus, geoduck is called *mirugai* or *mirukuigai* . (Although mirugai is sometimes translated to English as "Giant Clam", it is distinguished from "Himejako" sushi made from *Tridacna gigas*.)

Seafood Geoduck display in a Chinese restaurant with price

The geoduck's high market value has created an 80-million-U.S.-dollar annual industry, with harvesting occurring in both Washington state and the province of British Columbia. It is one of the most closely regulated fisheries in both countries; in Washington, Department of Natural Resources staff are on the water continually, monitoring harvests, and the same is true in Canada where the Underwater Harvesters' Association manages the Canadian Fishery in conjunction with Canada's Department of Fisheries and Oceans. Demand has also led to a rapidly developing aquaculture industry.

Geoduck aquaculture on private tidelands in Puget Sound, particularly in South Puget Sound, has been steadily growing over the last ten years, averaging about 10 new acres of cultivation per year. Currently less than 0.001% of Puget Sound is dedicated to geoduck farming. Geoduck farms use "predator exclusion devices" in which to plant the seed geoducks. These devices are 10-14 inch long, 4-6 inch diameter PVC pipes pushed into the sediment of the tideland. There are approximately 20,000 to 43,500 of these PVC pipes planted per acre on tidelands. These nursery tubes typically stay in the beach for the first one to two years of a crop cycle.

The Environmental Defense Fund has done extensive studies of aquaculture and has found that bi-valve aquaculture like geoduck clams are very beneficial to the marine environment. {Goldburg, Rebecca, et al. "Marine Aquaculture in the United States," as prepared by Environmental Defense for Pew Oceans Commission, 2001.} The primary reason for this is because geoduck clams are filter feeders and eat micro algae which proliferates as more nitrogen enters the marine ecosystem. Increases in nitrogen are due to more septic systems as well as bigger flows from city sewage systems throughout Puget Sound, increasing quantities of pet wastes, and increased fertilizer use from farms and lawns. When farmed geoduck clams (which ingest and retain nitrogen in their tissues) are harvested there is a net reduction in nitrogen in the marine ecosystem.

It should be noted that the water must be certifiably clean in order to plant geoducks commercially. This is a requirement of the Washington State Department of Health, and of the Interstate Shellfish Sanitation Council.

While some communities in Puget Sound have installed state of the art septic systems to comply with efforts by environmental groups and state officials to clean up Puget Sound, more than 3000 acres (12 km²) of shellfish beds have been lost to farming between 1992 and 2004 due to fecal contaminantion from human activities and development. Substantial portions of the state's shorelines are already so developed or degraded that they are unsuitable for harvesting, and other areas continue to follow suit.

Some shoreline owners have expressed concerns including aesthetics, effects on native geoduck populations, wildlife interactions, farm debris, and harvest techniques. Although some marine shoreline owners take issue with the visual impacts, the tubes are actually only visible 2-3% of daylight hours over a 6-year crop cycle. The reason for the low visibility is because geoduck are farmed in the lower

elevations of the beach and are covered by water most of the time. However, since the lowest tides in the summer are during mid-day, the visual impact of the tubes is greatest at the very time when the people of Puget Sound are likely to be exploring the beach. During the summer, farms are visible for as much as 5 hours during the day, every other week.

Effects on native geoduck populations from geoduck farming will be minimal to non-existent. Each year new hatchery brood stock is taken from the wild stock. Farmed animals are not used as brood stock so genetically, farmed geoduck are the same as wild stocks. Moreover, wild geoduck occupy the intertidal zone down to 300 feet below sea level. DNR and the tribes co-manage the wild fishery and only harvest geoduck between the -18 to -70 foot depths. Most of the wild geoduck stock is left untouched and unaltered.

Wildlife interactions are a concern and geoduck growers are adapting growing techniques to minimize these effects. A biological assessment examining the impacts of geoduck farming was completed and no long term effects on threatened or endangered species were identified.

Farm debris includes displaced net tops, rubber bands, and tubes. The netting tops used on the nursery pipes can come off and float away onto other beaches as debris and the rubber bands also can become debris in Puget Sound. To offset these environmental impacts most geoduck farmers have been embraced environmental codes of practice including regular maintenance and debris clean-up of their own farms. In addition, the industry now does two annual beach cleanups to collect marine debris from all beaches in areas where they farm. Although as much as 20% of the debris collected in each cleanup has been aquaculture related, less than 5% of the 120 cubic yards collected to date has been related to geoduck farming. Unfortunately, because of the currents in Puget Sound, nets and tubing can be found far from any poorly maintained geoduck operations.

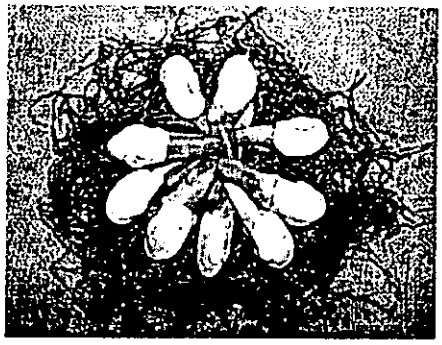
Harvesting takes place every 4-6 years. Water pressure hoses using up to 50 gallons of water per minute are used to liquefy the sediment in order to extract the geoducks. There are limilted impact studies related to intertidal harvest of geoduck as of August 2006, although the sub-tidal environmental impact studies done for the fisheries in BC and WA have found no detrimental effects in harvesting the clams. Geoduck farming is only conducted in clean, uncontaminated sediments so concern is limited to short term increases in turbidity and short term effect on benthic organisms. It should be noted that the Department of Natural Resources of Washington State conducted the environmental impact study. DNR is itself in the business of leasing subtidal lands for commercial geoduck harvest and starting this year, intertidal lands for commercial geoduck farming.

Compared to terrestrial farming, shellfish farming in general and geoduck farming in particular produces high quality protein using natural systems without the use of antibiotics, fertilizers, herbicides, or pesticides.

October 2005 Alaska Fish + Wildlife News

Geoducks: Southeast Gets a Toehold in the Market World's Largest Burrowing Clam Can Live 140 Years

By Amy Carroll



Geoducks can live for decades; growth rings on their shells have shown that some geoducks live more than 140 years.

Geoducks are the world's largest burrowing clam. Pronounced "gooey-duck," they aren't gooey and they aren't ducks. Their name is derived from a Nisqualy Indian term meaning "dig deep."

There has been a small commercial geoduck fishery in Southeast Alaska since the early 1980s. With the intent to diversify the state economy and highlight Alaska seafood in the world market, the Aquatic Farm Act of 1988 allowed The Alaska Department of Fish and Game (ADF&G) to issue permits for construction and operation of aquatic farms and hatcheries.

However, it wasn't until 2002 that the profit potential of the geoduck harvest really took off. That's when the Alaska Department of Environmental Conservation and Southeast Alaska Regional Dive Fisheries Association (SARDFA) established a more efficient Paralytic Shellfish Poisoning (PSP) monitoring plan. Test results are posted online immediately after being entered into the database, which allows more of the geoducks to enter the market live, not processed. The market price for live geoducks is $5 to $10 a pound, for processed it is less than $1 a pound. According to SARDFA, 90 percent of the 2004-2005 commercial season harvest was delivered live.

Not surprisingly, interest in geoduck farming has skyrocketed. "In the recent 2005 aquatic farm opening, over 97 percent of the 141 proposed aquatic farm sites are for culturing geoducks," said Cynthia Pring-Ham, Mariculture Coordinator for ADF&G.

Currently, most of Alaska's 400,000 pound geoduck harvest is destined for Hong Kong and China, where they sell for up to $30 a pound. Their texture has been variously described as sweet, crunchy, or rubbery.

"They are not necessarily as palatable to the North American market. They are considered a delicacy in Asian markets," said Pring-Ham.

The most prized meat is the siphon, eaten raw, sashimi style with soy sauce and wasabi, or cooked in Chinese hot pot soups.

Prime geoduck harvesting areas in Southeast Alaska include Ketchikan's Gravina Island, Craig, Metlakatla, Wrangell, and Symond's Bay near Sitka.

Geoducks reach sexual maturity at three years. After five to 10 years, when their weight is between two and four pounds, they are considered harvestable. They will continue to grow until they are about 15 years old and can reach weights of 14 pounds.

"In Washington state it takes seven years for geoducks to reach a harvestable weight of two pounds, but the waters are colder up here so they may grow slower in Alaska," Pring-Ham said. "We don't have complete growth data yet, since the most mature cultured geoducks at permitted farm sites are only three years old."

The average age of geoducks harvested commercially in Alaska is 44 years.

Wild geoducks reproduce by "broadcast spawning" – releasing eggs and sperm into the water and relying on the movement of the water to unite them. Within 40 to 50 days, the immature geoducks will slowly burrow into the muddy ocean floor at the rate of about one foot a year.

When they are about three feet deep, they settle in for life, unable to move from their burrows. A geoduck siphon may stretch to over three feet to reach the sea floor. Geoducks are filter feeders, sucking in water through the incurrent siphon to extract plankton, and pushing the remaining water out through their excurrent siphon.

Growth rings on their shell have shown that some geoducks can live for over 140 years.

Buried in the ocean floor, geoducks are filter feeders, sucking in water through the incurrent siphon to extract plankton, and pushing the remaining water out through their excurrent siphon.

Pring-Ham manages the mariculture program and issues permits for aquatic farms in Southeast Alaska. "We also do site inspections and provide technical assistance, guidance and training to farmers," she said.

Every two years, the Department of Natural Resources (DNR) provides an opening from January to April to apply for a tidal submerged land lease. A lengthy, multi-agency six-month review of the application is completed; and if it meets all the state regulatory review standards, a lease from DNR and an operation permit from ADF&G are issued for a 10-year period. An average geoduck farm site is about six acres.

Sites must be surveyed to make sure that there are no more than 12,000 pounds of wild geoducks already existing on the farmsite. Recent legislation and court rulings have made it clear that sites that attract or support a commercial fishery will not be granted an operation permit. The department is working with the farmers to find ways to decrease the survey costs and time that it takes to do them, so data is more readily available to the department for making this decision. Delays in issuing the permit may occur due to current limitations on how many surveys can be done by the department each year.

Harvesting geoducks is no walk on the beach. They are usually found in water 25 to 100 feet deep, and then another three feet down in the muddy sea floor.

Harvesting is usually by "hookah" diving – wearing a drysuit and breathing air through a hose to the surface. This allows divers to stay down longer and work harder without the inconvenience of scuba tanks. Divers carry an air hose, or "stinger," used to blow the mud and silt away from a geoduck. The blast from a stinger can stir up so much bottom silt that divers can no longer see, and must extract the geoduck by feel. Great care must be taken not to injure the geoduck's neck or shell.

Other countries are looking to contribute to the lucrative geoduck market, Pring-Ham said. "China is starting to produce hatchery-raised geoduck seed for farming, so this may mean potential competition for the U.S."

Article 02. AQUATIC FARMING

Sec. 16.40.100. Aquatic farm and hatchery permits.

(a) A person may not, without a permit from the commissioner, construct or operate

(1) an aquatic farm; or

(2) a hatchery for the purpose of supplying aquatic plants or shellfish to an aquatic farm.

(b) A permit issued under this section authorizes the permittee, subject to the conditions of AS 16.40.100 - 16.40.199 and AS 17.20, to

(1) acquire, purchase, offer to purchase, transfer, possess, sell, and offer to sell stock and aquatic farm products that are used or reared at the hatchery or aquatic farm; and

(2) except as provided in (f) of this section, harvest and, without further cultivation, sell an insignificant population that may be present at the aquatic farm site of a wild stock of a shellfish species intended to be cultured at the site.

(c) The commissioner may attach conditions to a permit issued under this section that are necessary to protect natural fish and wildlife resources.

(d) Notwithstanding other provisions of law, the commissioner may not issue a permit under this section for the farming of, or hatchery operations involving, Atlantic salmon.

(e) Upon the expiration or termination of a permit issued under this section, a person who holds a permit for an aquatic farming site where wild stocks of shellfish indigenous to the site are cultured shall, as a condition of the permit, restore the wild stock of shellfish, as consistent with sustained yield management of the wild stock, to the population level that existed on the site when the permit for the site was initially issued by the commissioner. A permit holder is not required to restore that portion of the wild stock of shellfish that was removed from an aquatic farming site by a common property fishery conducted after the issuance of the permit for the aquatic farming site.

(f) If the wild stock of a shellfish species to be cultured at an aquatic farm site exceeds the amount determined by the department to be an insignificant population and if the commissioner determines in writing that removal from the site of that portion of the stock that exceeds an insignificant population would benefit the public and that removal of the stock by a person other than the permittee would unreasonably interfere with the operation of the aquatic farm, the commissioner may authorize the permittee to remove and sell the excess amount of the wild stock from the site, if the permittee pays reasonable compensation, as defined by the department, to the department for the harvest and sale of the excess wild stock. The department shall deposit the money received under this subsection into the general fund. The legislature may appropriate the money received under this section to the department for shellfish management and enhancement.

Sec. 16.40.105. Criteria for issuance of permits.

The commissioner shall issue permits under AS 16.40.100 on the basis of the following criteria:

(1) the physical and biological characteristics of the proposed farm or hatchery location must be suitable for the farming or the shellfish or aquatic plant proposed;

(2) the proposed farm or hatchery may not require significant alterations in traditional fisheries or other existing uses of fish and wildlife resources;

(3) the proposed farm or hatchery may not significantly affect fisheries, wildlife, or their habitats in an adverse manner;

(4) the proposed farm or hatchery plans and staffing plans must demonstrate technical and operational feasibility; and

(5) the proposed farm site may not include more than an insignificant population of a wild stock, on the site, of a shellfish species intended to be cultured.

Sec. 16.40.110. Permit application, renewal, and transfer.

(a) An applicant for an aquatic farming or hatchery permit required under AS 16.40.100 shall apply on a form prescribed by the commissioner. An application for a permit must include a plan for the development and operation of the aquatic farm or hatchery, which must be approved by the commissioner before the permit is issued.

(b) An application for renewal or transfer of a permit must be accompanied by fees required by the commissioner, a report of the disease history of the farm or hatchery covered by the permit, and evidence that satisfies the commissioner that the applicant has complied with the development plan required under (a) of this section. The commissioner may require a health inspection of the farm or hatchery as a condition of renewal. The department may conduct the inspection or contract with a disease diagnostician to conduct the inspection.

(c) A person to whom a permit is transferred may use the permit only for the purposes for which the permit was authorized to be used by the transferor, and subject to the same conditions and limitations.

Sec. 16.40.120. Aquatic stock acquisition permits.

(a) A person may not acquire aquatic plants or shellfish from wild stock in the state for the purpose of supplying stock to an aquatic farm or hatchery required to have a permit under AS 16.40.100 unless the person holds an acquisition permit from the commissioner.

(b) An acquisition permit authorizes the permit holder to acquire the species and quantities of wild stock in the state specified in the permit for the purposes of supplying stock to

(1) an aquatic farm or hatchery required to have a permit under AS 16.40.100;

(2) the department.

(c) The commissioner shall specify the expiration date of an acquisition permit and may attach conditions to an acquisition permit, including conditions relating to the time, place, and manner of harvest. Size, gear, place, time, licensing, and other limitations applicable to sport, commercial, or subsistence harvest of aquatic plants and shellfish do not apply to a harvest with a permit issued under this section. The commissioner of fish and game shall issue or deny a permit within 30 days after receiving an application.

(d) The commissioner shall deny or restrict a permit under this section upon finding that the proposed harvest will impair sustained yield of the species or will unreasonably disrupt established uses of the resources by commercial, sport, personal use, or subsistence users. The commissioner shall inform the Board of Fisheries of any

action taken on permit applications for species that support commercial fisheries subject to limited entry under AS 16.43 and of any permits denied because of unreasonable disruption of an established use. A denial of the permit by the commissioner must contain the factual basis for the findings.

(e) The Board of Fisheries may adopt regulations for the conservation, maintenance, and management of species for which an acquisition permit is required.

(f) Except as provided in (d) of this section or in a regulation adopted under (e) of this section, the commissioner shall issue a permit if

(1) wild stock is necessary to meet the initial needs of farm or hatchery stock;

(2) there are technological limitations on the propagation of culture stock for the species sought;

(3) wild stock sought is not fully utilized by commercial, sport, personal use, or subsistence fisheries; or

(4) wild stock is needed to maintain the gene pool of a hatchery or aquatic farm.

(g) Aquatic plants and shellfish acquired under a permit issued under this section become the property of the permit holder and are no longer a public or common resource.

Sec. 16.40.130. Importation of aquatic plants or shellfish for stock.
A person may not import into the state an aquatic plant or shellfish for the purpose of supplying stock to an aquatic farm or hatchery unless authorized by a regulation of the Board of Fisheries.

Sec. 16.40.140. Limitation on sale, transfer of stock, and products.

(a) A private hatchery required to have a permit under AS 16.40.100 may sell or transfer stock from the hatchery only to an aquatic farm or other hatchery that has a permit issued under AS 16.40.100, except that shellfish stock may also be sold or offered for sale to an aquatic farm or related hatchery outside of the state.

(b) Stock may not be transferred to or from an aquatic farm or hatchery required to have a permit under AS 16.40.100 without prior notice of the transfer to the commissioner. A notice of transfer shall be submitted at least 45 days before the proposed date of transfer.

(c) A notice of transfer must be accompanied by a report of a health inspection of the stock. The department shall conduct the inspection or contract with a disease diagnostician to conduct the inspection. The cost of inspection shall be borne by the department.

(d) The department may restrict or disapprove a transfer of stock if it finds that the transfer would present a risk of spreading disease.

(e) A person may not sell, transfer, or offer to sell or transfer, or knowingly purchase or receive, an aquatic farm product grown or propagated in the state unless the product was grown or propagated on a farm with a permit issued under AS 16.40.100. The permit must be in effect at the time of the sale, transfer, purchase, receipt, or offer.

Sec. 16.40.150. Disease control and inspection.

(a) The department shall order the quarantine or the destruction and disposal of diseased hatchery stock or of aquatic farm products when necessary to protect wild stock. A holder of a permit issued under AS 16.40.100 shall report to the department an

outbreak or incidence of disease among stock or aquatic farm products of the permit holder within 48 hours after discovering the outbreak or incidence.

(b) A holder of a permit issued under AS 16.40.100 shall allow the department to inspect the permit holder's farm or hatchery during operating hours and upon reasonable notice. The cost of inspection shall be borne by the department.

(c) The department shall develop a disease management and control program for aquatic farms and hatcheries.

(d) The department may enter into an agreement with a state or federal agency or a private, state-certified provider to provide services under (b) and (c) of this section, or inspections under AS 16.40.110(b).

Sec. 16.40.155. Records and reports confidential.
Records required by statute or by a regulation adopted by the department concerning aquatic farm stocks or production, prices, and harvests of aquatic farm products and wild stocks, and annual statistical reports of individual aquatic farms or hatcheries required by statute or by a regulation adopted by the department are confidential and may not be released by the department, except that the department may release the records and reports

(1) to the Department of Revenue and the Department of Natural Resources to assist the departments in carrying out their respective statutory responsibilities;

(2) as necessary to comply with a court order;

(3) provided by an aquatic farm or hatchery permit holder to the permit holder whose activity is the subject of the records or reports;

(4) regarding cumulative annual harvests of wild stocks at individual aquatic farm sites.

Sec. 16.40.160. Regulations.
The commissioner may adopt regulations necessary to implement AS 16.40.100 - 16.40.199.

Sec. 16.40.170. Penalty.
A person who violates a provision of AS 16.40.100 - 16.40.199, a regulation adopted under AS 16.40.100 - 16.40.199, or a term or condition of a permit issued under AS 16.40.100 - 16.40.199, is guilty of a class B misdemeanor.

Sec. 16.40.199. Definitions.
In AS 16.40.100 - 16.40.199

(1) "aquatic farm" means a facility that grows, farms, or cultivates aquatic farm products in captivity or under positive control;

(2) "aquatic farm product" means an aquatic plant or shellfish, or part of an aquatic plant or shellfish, that is propagated, farmed, or cultivated in an aquatic farm and sold or offered for sale;

(3) "aquatic plant" means a plant indigenous to state water or that is authorized to be imported into the state under a permit issued by the commissioner;

(4) "commissioner" means the commissioner of fish and game;

(5) "hatchery" means a facility for the artificial propagation of stock, including rearing of juvenile aquatic plants or shellfish;

(6) "insignificant population" means a population of shellfish that, in the determination of the commissioner, would not attract and support a commercial fishery for that species of shellfish and the harvest and sale of the shellfish would not result in significant alteration in traditional fisheries or other existing uses of fish and wildlife resources if the population were included within an aquatic farm site;

(7) "positive control" means, for mobile species, enclosed within a natural or artificial escape-proof barrier; for species with limited or no mobility, such as a bivalve or an aquatic plant, "positive control" also includes managed cultivation in unenclosed water;

(8) "shellfish" means a species of crustacean, mollusk, or other invertebrate, in any stage of its life cycle, that is indigenous to state water or that is authorized to be imported into the state under a permit issued by the commissioner;

(9) "stock" means live aquatic plants or shellfish acquired, collected, possessed, or intended for use by a hatchery or aquatic farm for the purpose of further growth or propagation.

Notes HB43: Geoduck aquatic farming / seed transfer

(H)FISH 26 February 2009: J. Yuhas / R. Josephson

The Department of Fish and Game:

- ***Supports the goal of HB 43 to promote mariculture throughout Alaska, beyond Southeast AK***
- ***2007 co-authored at least two proposals with The Alutiiq Pride Shellfish Hatchery to obtain monies to develop sterile bivalve mollusks to promote mariculture in different regions of AK.***
- ***Is willing to support additional proposals for sterile bivalve research.***

LARVAL DRIFT ZONES:

Consistent with other stocking policies: seed or stock only approved when they come from a designated local area

- *Current regulations permit transplantation of bivalves only within six recognized larval drift zones, zones within which stocks are expected to be genetically similar. Transplantations between drift zones or beyond the species' natural range are prohibited. Similar regulations apply for salmon, restricting transports between regions.*
- *rules regulating the transplantation of geoducks stocks are already more liberal in Alaska than they are in either British Columbia or Washington (for example, BC identifies 3-5 larval drift zones for geoducks in its much more limited coastline).*
- *ADFG was extremely liberal in the two+ year deliberative process that led to the existing Larval Drift Zones*
- *ADFG compromised to meet the perceived needs of industry while instituting some protections for stock structure*

INTRODUCING A NON-NATIVE SPECIES:

Consistent with other stocking policies: size of body of water and propensity for dispersal into new uncontrolled areas are major factors along with competition for food, contamination, and habitat implications

- *many examples of injurious consequences of introduced species in the United States*
  - *Zebra mussels in the Great Lakes,*
  - *Pacific oysters into Chesapeake Bay,*
  - *Japanese oyster drill introduced into Washington with Pacific Oyster seed;*
  - *thousands of other examples may be found in common literature / even Google*

LACK OF INFORMATION ON POSSIBLE IMPACTS:

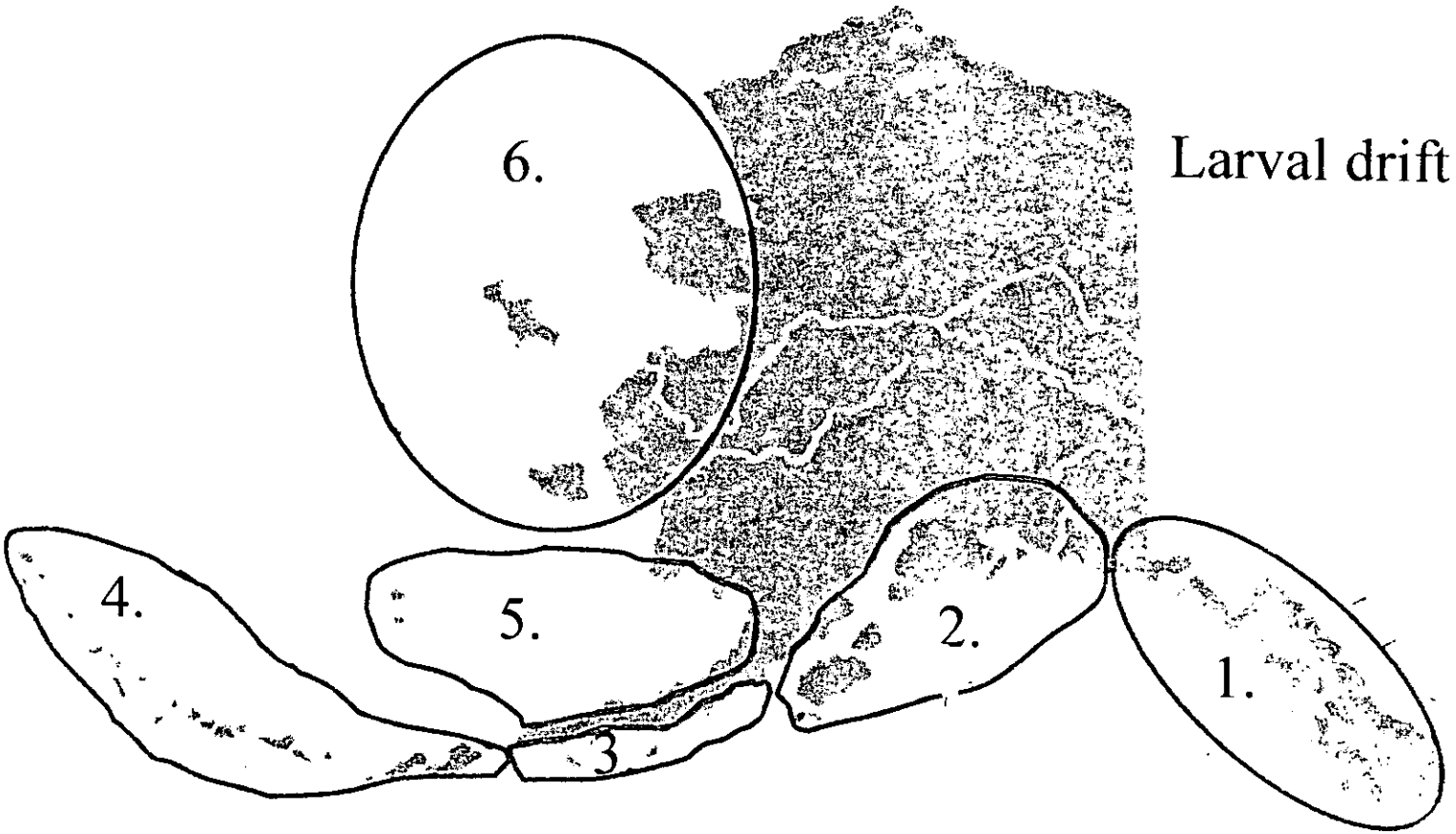
Consistent with other stocking policies: if studies are desired necessary funds must be appropriated for those purposes

- *Not possible to predict the outcome if the introduced species successfully reproduces and colonizes the new habitat.*
- *Ecosystem effects are not limited to the competition that might occur in the beach substrate, but include potential impacts of upsetting the entire food web.*
- *Geoducks are highly fecund; each female releases many millions of planktonic eggs each year making them very high risk.*
- *Many members of the committee have questioned introduction of Wood Bison without more information*

ECONOMIC DEVELOPMENT:

Impacts to existing economically viable fisheries and other industries must be taken in to account while contemplating the issue of experimental possibilities

- *Geoduck farming still in its infancy*
- *Undemonstrated benefits from geoduck farming in Southeast Alaska where the species already exists,*
- *Difficult to justify exceptions to our policies that are designed to protect the natural resources of Alaska.*
- *Many members of the committee have voiced concerns over the introduction of Wood Bison unless further information is gathered and have inferred that this project would stifle economic development of existing industries. Infinitely more information exists with regards to this project than with Southeast geoducks.*



(1) Southeastern Alaska, from the Canadian border north to Cape St. Elias.

(2) Prince William Sound and Cook Inlet, from Cape St. Elias west and south to Cape Igvak, including Kodiak Island.

(3) Chignik and the Alaska Peninsula-Aleutian Islands, from Cape Igvak west to the tip of Unimak Island.

(4) The Aleutian Islands, including all islands west of Unimak Pass.

(5) The southeast Bering Sea and north Alaska Peninsula, from the westernmost tip of Unimak Island north to the Kuskokwim River, including the Pribilof Islands.

(6) The northeast Bering Sea, including all coastal islands north of the Kuskokwim River.

Alaskan Shellfish Growers Association

February 20, 2009

Rep. Paul Seaton
State Capitol
Juneau, AK 99801

Dear Representative Seaton:

The Alaskan Shellfish Growers Association (ASGA) supports House Bill 43 and applauds your efforts to stimulate the growth of shellfish aquaculture throughout the state.

Some might criticize the bill because it would allow the introduction of this highly valuable species of shellfish beyond its "natural range." This is a concept that ASGA played a key role in removing from ADF&G's mariculture regulations several years ago.

Our argument is the "natural range" is elusive and aquatic organisms are continually responding to changing environmental conditions, such as water temperatures, availability of predator and prey, and, as we're now discovering, the amount of carbon in the water column. Just ask fisheries scientists about the shifting "natural range" of Pollock in the Bering Sea or the increasing number of salmon being caught near Barrow.

Important to consider is that geoducks are indigenous to Alaska and there is virtually no chance of spreading disease or polluting the gene pool of wild stocks if this bill is approved and implemented. Alaska has perhaps the strictest regulations in the country governing the transfer of shellfish within the state, and every movement of juvenile shellfish or "spat" must be approved by ADF&G's pathologist. And, since there are no wild stocks of geoducks north of Cape Suckling, there is not gene pool that could be compromised by their introduction to the area.

Geoducks are the world's largest burrowing clams and some of the most valuable seafood harvested in Alaska. These are not zebra mussels or some other dangerous invasive species. The worst that could happen is that the clams will thrive and create new wealth in coastal areas where local residents are leaving because there are no jobs.

In short, HB 43 is a good bill and we support it.

Sincerely,

Rodger Painter

Rodger Painter
ASGA President

Alutiiq Pride Shellfish Hatchery
PO Box 369
Seward, AK 99664
907 224-5181 224-5282 fax
jjh@seward.net

February 18, 2009

Representative Paul Seaton
State Capitol
Juneau, Alaska 99801

Dear Representative Seaton:

The Alutiiq Pride Shellfish Hatchery appreciates your efforts with House Bill 43. We rely upon, in part, on shellfish seed sales to cover our operating expenses. Geoducks and their high value offer us the best opportunity to achieve our sales goals. To date, the demand has not been as originally projected causing a perpetual shortfall in revenue. Opening additional markets in south-central Alaska will help alleviate this deficit.

We are often frustrated by the Alaska Department of Fish and Game and their regulation of transport. It is ironic that we can transport a non-indigenous species such as oysters and cannot transport a native species outside what is considered its natural range. The fact that it may be non reproductive in South-central Alaska should make management easy.

I would suggest we promote a cooperative demonstration project exploring the feasibility of geoduck farming in south-central Alaska headed by the Department of Fish and Game, the Department of Commerce, and the Chugach Regional Resources Commission. The shellfish hatchery can provide geoduck seed for such an effort.

Sincerely,

Jeff Hetrick
Director

Alaska State Legislature

State Capitol, Room 102
Juneau, AK 99802
Phone: 465-4389
Fax: 465-3472
Toll Free (800) 665-4389
Representative_Paul_Seaton@legis.state.ak.us

345 W. Sterling Highway
Suite 102B
Homer, AK 99603
Phone: 235-2921
Fax: 235-4008

REPRESENTATIVE Paul Seaton

District 35

MEMORANDUM

TO: Representative Neuman, Co-Chair
Representative Johnson, Co-Chair
House Resources Committee

FROM: Representative Paul Seaton

DATE: Friday, January 27th, 2009

RE: Request for a hearing, HB 43

I respectfully request a hearing on HB 43 before the before the House Resources Committee.

In summary, HB 43 states that the Department of Fish and Game cannot use the absence of wild geoducks in an area to deny a farming permit.

Attached please find: HB 43, sponsor statement, fiscal note, sectional analysis, "What is a Geoduck," Article 2 Aquatic Farming, letters of support, and hand out from ADF&G "Notes HB43: Geoduck aquatic farming/ seed transfer."

Staff contact: Katie Koester, 465- 2028

HOUSE BILL NO. 43

IN THE LEGISLATURE OF THE STATE OF ALASKA

TWENTY-SIXTH LEGISLATURE - FIRST SESSION

BY REPRESENTATIVE SEATON

Introduced: 1/9/09
Referred: Prefiled

A BILL

FOR AN ACT ENTITLED

"An Act relating to aquatic farm permitting involving geoducks and to geoduck seed transfers between certified hatcheries and aquatic farms."

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:

*** Section 1.** AS 16.40.100 is amended by adding a new subsection to read:

(g) The commissioner may not use the absence of wild geoduck stock within a management area described in AS 16.40.145 as the reason for denial of an aquatic farm permit under this section. If, under this section, the commissioner issues a permit for an aquatic farm to culture geoducks in a management area that does not have wild geoduck stocks when the permit is issued, the permit may not allow operations for that purpose in the intertidal habitat or environment.

*** Sec. 2.** AS 16.40 is amended by adding a new section to read:

Sec. 16.40.145. Geoduck seed transfer between a certified hatchery and an aquatic farm. Consistent with AS 16.40.140(b) - (d), a hatchery certified under AS 16.40.100 may transfer geoduck seed to an aquatic farm located in a fisheries

management area established under this title that is contiguous to the Gulf of Alaska.