

## **Live Animal Market History October 2005 to February 2010**

*Compiled by: Shawn Cabbage/Anita Biedermann  
U:/Groups/FGC/Live Animal Market History2.doc*

### **2005**

This item did not appear on the agenda in 2005.

### **2006**

**March, 2006** - UPDATE ON STATUS OF LIVE ANIMAL MARKET REPORT. (No Dept. exhibits received.)

Nancy Foley gave a history of environmental services for invasive species. Commissioners had questions regarding who has authority over what. There was also a suggestion that we may need legislation to clean up the lines of authority.

**April, 2006** - UPDATE ON STATUS OF LIVE ANIMAL MARKET REPORT. (No Dept. exhibits received.)

Sonke Mastrup made a comment that the Department is preparing a written report which should be ready for the Commission's May or June, 2006, meeting.

**May, 2006** - UPDATE ON STATUS OF LIVE ANIMAL MARKET REPORT. (Dept. written report received - see below.)

#### Department memo dated April 25, 2007:

Each year the Department's Enforcement staff takes action on cases involving illegal importation, undocumented product and exotic species. With current staffing levels the same as in the 1960's and with the increased demands on enforcement, live animal market cases don't make our enforcement priority list (below). Enforcement has made difficult management decisions recently to not advertise nor fill vacant urban area positions from the academy graduates. With pay issues and housing costs we feel this is the only way we can retain existing wardens.

There are thousands of other law enforcement officers in each of the bay and urban areas all with the ability and knowledge to issue citations for violation of Penal Code section 597.3 - Cruelty of animals at live animal markets (attached). Although wardens can also issue these citations, all peace officers have the same ability and are more accessible for quick response. Attached is a list of various federal, state and local agencies with various authorities to enforce, and oversight over live animal markets.

If you have any questions, please contact Sonke Mastrup, Deputy Director, at 916-653-4673.

## **DFG ENFORCEMENT PRIORITIES**

The current priorities of the Enforcement Branch are:

- Public Safety/Mutual Aid/Homeland Security
- Habitat Protection
- Pollution Investigations
- Investigation of illegal commercialization of wildlife
- Patrol in support of the Fish and Game Code and Title 14 Regulations

Attachments

### **RETAIL SALES OF ANIMALS: PRIMARY AGENCIES AND LAWS**

#### **Agencies With Oversight Of Live Animals**

##### **FEDERAL AGENCIES**

##### **NMFS**

##### **Endangered Species Act (ESA)**

The Endangered Species Act was established in 1973 to conserve the Nation's natural heritage for the enjoyment and benefit of current and future generations by conserving species that are in danger of extinction.

##### **Marine Mammal Protection Act (MMPA)**

The Marine Mammal Protection Act was established in 1972 to protect marine mammals by prohibiting take of marine mammals in U.S. waters and by U.S. citizens on the high seas, and the importation of marine mammals and marine mammal products into the United States.

##### **USFWS**

##### **Endangered Species Act (ESA)**

The Endangered Species Act was established in 1973 to conserve the Nation's natural heritage for the enjoyment and benefit of current and future generations by conserving species that are in danger of extinction.

##### **Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)**

Ensures international trade in specimens of wild animals and plants does not threaten their survival; in the U.S., implemented by the Endangered Species Act.

##### **Alien Species Prevention and Enforcement Act of 1992**

This Act defines nonmailable plant and animal matter, and establishes a program to prevent the introduction of prohibited plants, plant pests and injurious animals into Hawaii through the mail.

##### **Lacey Act**

This Act authorizes the Secretary of the Interior to adopt measures to aid in restoring game and other birds in parts of the U.S. where they have become scarce or extinct and to regulate the introduction of birds and animals in areas where they had not existed. It is

also used by enforcement to investigate the transportation of wildlife taken in violation of law. All sections but one of the original 1900 Act have been repealed and either restated in or reenacted by other code provisions. This is a summary of the one remaining section of the original Lacey Act. The Lacey Act Amendments of 1981 are summarized separately.

#### **Migratory Bird Treaty Act**

Unless permitted by regulations, the Act provides that it is unlawful to pursue, hunt, take, capture or kill; attempt to take, capture or kill; possess, offer to or sell, barter, purchase, deliver or cause to be shipped, exported, imported, transported, carried or received any migratory bird, part, nest, egg or product, manufactured or not. Subject to limitations in the Act, the Secretary of the Interior (Secretary) may adopt regulations determining the extent to which, if at all, hunting, taking, capturing, killing, possessing, selling, purchasing, shipping, transporting or exporting of any migratory bird, part, nest or egg will be allowed, having regard for temperature zones, distribution, abundance, economic value, breeding habits and migratory flight patterns. Regulations are effective upon Presidential approval. §§ 703 and 704.

#### **Wild Bird Conservation Act of 1992**

Overview. This Act provides a series of measures to conserve exotic birds and fulfill the obligations of the U.S. under the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). The Act includes provisions to limit or prohibit U.S. imports of exotic bird species covered by the Convention and authorizes moratoria on the importation of species not covered by the Convention. It also sets standards for qualifying bird breeding facilities and establishes the Exotic Bird Conservation Fund

#### **USDA**

##### **Animal Welfare Act**

This Act is intended to assure the humane care and treatment of dogs, cats and other animals when transported and when used for research, experimentation, exhibition, sale and other purposes. The Act also is intended to protect pets by requiring a holding period before dogs and cats can be sold.

### **CALIFORNIA STATE AGENCIES**

#### **Department of Fish and Game**

F&G CODE: §§ 2116- 2190 Prohibits importing, transporting, or possessing "wild" animals. Includes a list of fish, birds, mammals, reptiles, & amphibians that are included. Provides authority to the Commission to enact regulations and amend list of species.

Title 14 CCR: §§ 671 – 671.6 Commission regulations enacting F&G sections above, includes amended list of species, permit requirements, caging regulations, etc.

#### **Health Services**

Department jurisdiction is primarily with any species that may be considered a vector for animal to human diseases and/or parasites.

CA H&S CODE: §§ 121575 – 122331 Veterinary Public Health and Safety, Rabies, Avian Zoonosis, Importation of Wild Animals, Sale of Dogs, Cats, Birds, Spay/Neuter. (AB 2862 would add §122340 to H&S that would, commencing July 1, 2007, establish procedures for the care and maintenance of animals in the custody of an animal retail

outlet, and would place limitations on the sale or transfer of those animals.)  
Title 17 CCR: §§ 2612.1 Turtle Salmonellosis. (a) Except as otherwise provided in this section, it shall be unlawful to import, sell or offer for sale or distribution to the public any live turtle(s) with a carapace length of less than 4 inches.

Title 17 CCR: §30070 – 30086 These regulations are intended to provide safeguards for the protection of persons in the State of California from disease hazards associated with imported wild animals. The regulations apply to all persons, including but not limited to the following: educational and research institutions, zoological gardens, schools, colleges, universities, pet stores, animal care facilities, and laboratories, who import, hold, sell, purchase or possess any wild animal for which an import permit is required under the provisions of Chapter 14, Division 20, California Health and Safety Code.

### **Food & Agriculture**

Department jurisdiction is primarily with invertebrate species and vertebrate species generally imported, transported, and possessed for food and fiber production. But also includes FOOD/AG CODE: §§ 30501 – 31765, dog licensing; dog/cat control; dangerous dogs.

### **DEPARTMENT OF FISH AND GAME JURISDICTION**

The Department's jurisdiction extends to all fish, bird, mammal, reptile, and amphibian species named in the various Fish and Game Code sections as Game, Nongame, Furbearing, Threatened, Endangered, Specially Protected, Wild, Or Fully Protected.

The jurisdiction includes management and regulatory authority provided by the Legislature and the Commission over all human activities impacting these species.

### **OVERLAPPING JURISDICTIONS**

The Federal, State, and Local agencies with overlapping jurisdiction with the Department include:

USFWS, NMFS for all T&E species;

USFWS for all migratory game bird species;

NMFS for most fish species occurring outside State Waters;

USDA for many mammal species commonly kept in captivity for any purpose;

CA FOOD & AG, HEALTH SERVICES, & LOCAL AGENCIES for all species designated "wild animals".

## **LOCAL AGENCIES**

### **CO. SHERIFF & CITY POLICE**

LOCAL ANIMAL CONTROL OFFICER (Peace Officer per 830.9, authority limited to city/county of appointment.

ST. HUMANE OFFICER Employees of Private Corp. e.g., Humane Society (Peace Officer per 14504 of Corporations Code, authority extends statewide w/concurrence of Co. Sheriff)

### **COUNTY HEALTH/ENVIRONMENTAL HEALTH**

US Title 21 CFR §1240.62 Except as otherwise provided in this section, viable turtle eggs and live turtles with a carapace length of less than 4 inches shall not be sold, held

for sale, or offered for any other type of commercial or public distribution.

**WEB SITES ETC WITH STATISTICS AND INFORMATION RELATED TO COSTS OF INVASIVE SPECIES ETC.**

F&A Publications: **Protecting California from Biological Pollution (January 2004)** @ <http://www.cdfa.ca.gov/exec/pdfs/ProtectCallLegisReport.pdf>

Biological Pollution: "The unintended introduction of exotic and invasive strains and species."

A safe food supply is a precious commodity. The California Department of Food and Agriculture (CDFA) is required by law to uphold many different responsibilities – including a core charge for the exclusion of plant and animal pests and diseases. The early identification and the prevention of entry of pests and diseases is one of our most significant challenges. Failure to meet this challenge presents one of the greatest threats to public health and safety and California's environment.

In 2003, California faced three major pest and animal disease outbreaks: Mexican Fruit Fly: Eradication Cost \$15 Million Total Potential Impact \$1.9 Billion: Bovine Tuberculosis: Eradication Cost \$12.7 Million Total Potential Impact \$6 Billion: Exotic Newcastle Disease: Eradication Cost \$170 Million Total Potential Impact \$3.2 Billion

California Penal Code 597.3

597.3. (a) Every person who operates a live animal market shall do all of the following:

(1) Provide that no animal will be dismembered, flayed, cut open, or have its skin, scales, feathers, or shell removed while the animal is still alive.

(2) Provide that no live animals will be confined, held, or displayed in a manner that results, or is likely to result, in injury, starvation, dehydration, or suffocation.

(b) As used in this section:

(1) "Animal" means frogs, turtles, and birds sold for the purpose of human consumption, with the exception of poultry.

(2) "Live animal market" means a retail food market where, in the regular course of business, animals are stored alive and sold to consumers for the purpose of human consumption.

(c) Any person who fails to comply with any requirement of subdivision (a) shall for the first violation, be given a written warning in a written language that is understood by the person receiving the warning. A second or subsequent violation of subdivision (a) shall be an infraction, punishable by a fine of not less than two hundred fifty dollars (\$250), nor more than one thousand dollars (\$1,000). However, a fine paid for a second violation of subdivision (a) shall be deferred for six months if a course is available that is administered by a state or local agency on state law and local ordinances relating to live animal markets. If the defendant successfully completes that course within six months of entry of judgment, the fine shall be waived. The state or local agency may charge the participant a fee to take the course, not to exceed one hundred dollars (\$100).

**June, 2006** - UPDATE ON LIVE ANIMAL MARKET SPECIAL HEARINGS. (No Dept. exhibits received.)

Receipt of Commission Information Items - Special public hearing to be scheduled in July 2006 in the Bay Area; received public testimony.

**August, 2006** - UPDATE ON LIVE ANIMAL MARKET SPECIAL HEARINGS. (No Dept. exhibits received.)

Eric Mills requested the Commission go to notice at its late August meeting. Commissioner Hattoy said that made sense to hold one special hearing in the East Bay Area. Commissioner Flores commented the idea of the special hearing would be to collect information.

Commissioner Hattoy moved to agendize to publish notice in late August, seconded by Commissioner Gustafson, passed unanimously.

**August 25, 2006-**

REQUEST FOR AUTHORIZATION TO PUBLISH NOTICE OF COMMISSION INTENT TO AMEND SECTION 236, TITLE 14, CCR, RE: PROHIBIT THE IMPORTATION OF TURTLES AND FROGS FOR THE LIVE ANIMAL MARKET.

Summary of Issue

This item has been scheduled at the request of Eric Mills, Action for Animals, for the Commission to authorization its staff to publish notice of Commission intent to amend Section 236, Title 14, CCR, regarding prohibiting the importation of turtles and frogs for the live animal market.

**For historical reference on this issue, the Commission, at its October 3, 1997, meeting in San Diego, heard testimony from animal protection groups relative to the importation of turtles and bullfrogs for sale in the live animal markets in the San Francisco Bay Area and elsewhere. The Commission received testimony that turtles and bullfrogs imported for food under the provisions of importation permits issued by the Department:**

- 1. are held under cruel conditions,**
- 2. are butchered using cruel methods, and**
- 3. despite laws which prohibit their release to the wild, they are often removed alive from markets and introduced to the waters of the State, creating a risk of damage to native wildlife populations.**

In response to these requests from concerned members of the public, the Commission authorized its staff to publish notice of its intent to amend Section 236, Title 14, CCR, to prohibit the importation of turtles and bullfrogs for use in live animal markets. The Commission received public testimony on the proposed change at its December 4, 1997, meeting in Long Beach. The adoption hearing was scheduled for the Commission's February 6, 1998, meeting in Sacramento.

The Asian community requested the Commission to postpone action on this matter to a future Commission meeting because the Chinese New Year celebration was from January 28 to February 14; therefore, it made it difficult for many of the Asian representatives to attend the meeting on February 6. In response to that request, the Commission at its February 6, 1998, meeting, continued consideration of this matter until its April 1, 1998, meeting in Long Beach.

At the April 1, 1998, meeting, the Commission heard considerable testimony on the issue. After a lengthy deliberation, the Commission decided against taking any regulatory action at that time. Instead, it directed that the following be done:

1. Department assist in enforcement at the live animal markets;
2. Commission staff assist in developing signs to post at live animal stores; and
3. Commission and Department staff develop amendments to the existing regulations which would clarify permit procedures and require appropriate signage be displayed at the meeting.

At that meeting, the Commission also directed the Executive Director to agendize this matter for the October 1-2, 1998, Commission meeting for a report on the progress being made.

Pursuant to Commission direction, this matter was agendized for the Commission's October 2, 1998, meeting in Monterey for receipt of input from the subcommittee of Commissioners Thieriot and Boren and a report by Commission staff on progress made, and in particular, the effectiveness of the voluntary signage efforts in San Francisco's Chinatown and elsewhere. At that meeting Commission staff provided input relative to possible legislation to authorize the Commission to adopt appropriate regulations. The Commission also heard from representatives of the San Francisco Chinatown merchants and from the animal protection groups.

At the conclusion of the discussion on October 2, 1998, the Commission decided to defer any action on a ban until the Legislature could address the issues addressed in the Commission's staff report. It was indicated that the Commission would schedule an agenda item for its February 1999 meeting in Sacramento to receive a progress report on any legislation.

On February 5, 1999, the Commission received a status report from Assemblyman Honda's office regarding the introduction of AB 238, which would provide the Commission authority to establish a permit system for the sale of bullfrogs and turtles for the live animal market, but would repeal the Commission's authority to ever ban the importation of turtles and bullfrogs. Testimony also indicated that many of the market owners may still be allowing the animals be sold alive rather than killing them as agreed on April 1, 1998. Therefore, the Commission authorized its staff to publish notice of its intent to reconsider banning the importation of bullfrogs and turtles for the live market.

**On February 18, 1999, Commissioner Boren and Executive Director Treanor met with Assemblyman Honda and his staff to discuss possible amendments to AB 238. Mr. Honda agreed to delete the sections which would eliminate the Commission's authority to ban importation of bullfrogs and turtles and to include the cost of enforcement as part of the permit fee. Commissioners were provided with a copy of AB 238 which was amended on April 7, 1999.**

### **Action Summary**

Received Department's recommendation; received public testimony. Commission unanimously authorized staff to public notice of its intent to amend regulations regarding the importation of turtles and frogs.

**October 24, 2006** - UPDATE ON LIVE ANIMAL MARKET. (No Dept. exhibits received.)

Sonke Mastrup commented he does not plan to have staff prepare the ISOR until after a special live animal market meeting.

Commissioner Flores stated that would be the best route to take, special hearing and then draft the ISOR.

Mr. Carlson suggested holding a small meeting with Mr. Mills and DFG staff to create the ISOR, and then hold the special meeting. Commissioner Flores agreed with that plan.

**November, 2006** - UPDATE ON LIVE ANIMAL MARKET. (No Dept. exhibits received.)

Sonke Mastrup stated he has written the California Department of Food and Agriculture (CDFA) and the California Department of Health Service (CDHS) asking about their regulatory authorities, he was awaiting their response.

**December, 2006** - UPDATE ON LIVE ANIMAL MARKET. (No Dept. exhibits received.)

Sonke Mastrup stated his staff and him met with CDFA and CDHS regulatory staff and managers.

- DHS will only engage in this issue if there is a reported health issue (illness in humans). To date, there has been no reported illness in humans from live market turtles or frogs.
- CDFA is centered on traditional livestock, such as: poultry, cows, sheep, and pigs - not frogs and turtles.
- An emergency rulemaking of Section 671 can only be done if there is an imminent threat to the state's natural resources, red-eared sliders have been in the state for many years, this does not call for an emergency action.
- Care and treatment issues of the animals in live markets are an animal welfare issue, cities and counties have the strongest authority for animal welfare issues.

Mr. Mastrup stated the Department will meet with counties and report back to the Commission. All local governments are very familiar with this issue.

## 2007

**February, 2007** - UPDATE ON LIVE ANIMAL MARKET. (No Dept. exhibits received.)

Sonke Mastrup stated that since the last Commission meeting DFG staff approached him letting him know that they plan on opening up Section 671 in October to add additional restricted species to the section.

He suggested the Commission wait to take action on the live animal market issue until that section is opened later in the year. Mr. Mastrup also commented that he is still working with the county animal welfare departments on setting up meetings to discuss this issue. Commissioners did not comment on this suggestion.

**October 12, 2007** - REQUEST TO PUBLISH NOTICE OF COMMISSION INTENT TO AMEND SECTION 671, TITLE 14, CCR RE: IMPORTATION, TRANSPORTATION, AND POSSESSION OF LIVE RESTRICTED ANIMALS.

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### Summary of Issue

The Department requests that the Commission authorize its staff to publish notice of Commission intent to amend Section 671, Title 14, CCR, regarding the importation, transportation, and possession of live restricted animals.

The Department's proposal can be summarized as follows:

**"This proposed regulation change would add seven species and two genera to the Restricted Animal List in Section 671 of Title 14. The animals listed below are non-native invasive species. They pose a threat to native fish and wildlife populations through competition for food, predation, alteration of habitats and/or as potential sources of introducing diseases or parasites to native fish and wildlife.**

**"Prevention is the most cost effective manner of managing these species, as control and eradication projects are very costly once an invasive species is released and establishes in the wild. A number of species and genera warrant addition to the Section 671 list in order to prevent their introduction into the state's wildlands or control the spread of species that have already been introduced. Although several of the species listed below are already known to exist in California, the control of these species is still possible, and inclusion in the list of Restricted Animals identifies these species as a threat to native wildlife and habitats. Once they are listed, partner agencies, like the Department of Food and Agriculture, have authority to undertake control actions.**

**"Proposed Taxa Not Yet Known in California**

- **Largescale silver carp (*Hypophthalmichthys harmandi*)**
- **Black carp (*Mylopharyngodon piceus*)**
- **Barramundi (*Lates calcarifer*)**
- **Abalone (all non-native species of genus *Haliotis*)**

#### Proposed Taxa Already Present in California

- Watersnake (all species of genus *Nerodia*)
- Coqui frog (*Eleutherodactylus coqui*)
- Channeled apple snail (*Pomacea canaliculata*)
- Mute swan (*Cygnus olor*) (except for mute swans possessed before January 1, 2008)

"The background information that follows provides some basic information about the species being proposed for addition to the restricted species list and the threats that they pose to native fish and wildlife resources.

#### "Background

##### Largescale silver carp (*Hypophthalmichthys harmandi*)

Until recently, this species was considered a subspecies of silver carp (*H. molitrix*), which is already on California's restricted animal list (i.e. Section 671 list). The two fish are very similar plankton feeders with potential to compete with native fish larvae and invertebrates, which in turn, are the food base for many larger fish and wildlife species. Adding this newly split-off species to Section 671 essentially closes a loophole that could be used to import animals that the Commission intended to restrict when Silver carp was added to the list.

##### "Black Carp (*Mylopharyngodon piceus*)

The natural range of black carp is drainages feeding into the Pacific Ocean in eastern Asia, including parts of China, Russia and possibly northern Vietnam. They were originally introduced into the United States as a 'contaminant' in grass carp importations and were subsequently intentionally imported by fish farmers for yellow grub control and as a food fish.

"Black carp is a blackish-brown fish with blackish-grey fins and an elongated and laterally compressed body. They can typically grow to more than 3 feet in length and weigh, on average, 33 pounds. Young black carp are difficult to distinguish from young grass carp (*Ctenopharyngodon idella*), another non-native species. Adults may be distinguished externally by the color and the more cylindrical form of the body, and internally by the pharyngeal teeth.

"Black carp are molluscivores (mussel and snail feeders) but also eat freshwater shrimp, crawfish, and insects. At all life stages, black carp will compete for food with native species. If introduced or established, black carp are likely to have a considerable impact on native mussel and snail populations. Native fish, turtles, birds, including waterfowl, and vertebrates, such as raccoons, otters, and muskrats, are likely to be affected through competition for food.

"In addition to the threat of their predatory behavior and its resulting impacts, the black carp may also have other impacts on our aquatic ecosystems including the transfer of pathogens and risk to threatened or endangered native species through predation.

**"Barramundi (*Lates calcarifer*)**

Barramundi are found in northern Australia and the Indo-West Pacific region. They are not currently known to exist in California. At different life stages, barramundi move between salt and freshwater habitats. Mature animals are located in estuarine/coastal areas and older juveniles are found in the upper reaches of rivers.

"The fish are greenish-bronze along the back, silver along the sides, shading to white on their bellies. Juveniles have creamy and dark blotches, and may have yellowish pelvic and tail fins. Most barramundi start life as males, reaching maturity at around 3-4 years of age and later change gender and become females, usually at around age 5. They can reach weights of up to 132 pounds. Barramundi are predators with a diet of fish and crustaceans.

"The breeding and rearing of barramundi commenced in the early 1980's and has resulted in the development of a significant aquaculture industry both in Australia and in South East Asia (including temperate areas such as South Australia). An area of particular concern in the farming of barramundi is the occurrence of an associated virus (Nodavirus). Barramundi pose a threat to California's native fisheries through predation, competition for food and transmission of diseases and parasites.

**"Watersnake (all species of the genus *Nerodia*)**

There are 10 species and 15 subspecies that are currently recognized as belonging to the genus *Nerodia*. They are all from North America, with their natural range occurring east of the Rocky Mountains and south into Mexico. Three isolated occurrences are known to currently exist in California in the cities of Folsom, Sacramento Co; Roseville, Placer Co., and the community of Harbor City, Los Angeles Co. These populations are thought to have started from pets that were released.

"The coloration of these snakes varies, but most individuals have earth-tone background coloration with lighter-colored crossbands running the length of the snake. Most individuals feature a dark stripe from eye to angle of jaw. It is common for *Nerodia* to become darker as they grow, and larger individuals may be completely black. They are generalist, mid-level carnivores, primarily eating amphibians and fish. The snakes themselves are prey for larger wading birds and raptors. This species has a high rate of reproduction and has developed a substantial population in Folsom over a relatively short period of time.

"The concern is that *Nerodia* will impact native fish and wildlife populations through predation and competition. Of particular concern is the potential for impacts to the Sacramento-area populations of giant garter snake (*Thamnophis gigas*), which is state and federally listed as threatened.

**"Coqui frog (*Eleutherodactylus coqui*)**

Coqui frogs are native to Puerto Rico and have become a serious pest in Hawaii, where the populations are very dense and the calling noises are considered an auditory disturbance to residents and tourists. They survive in warm, moist environments that might be encountered in gardens and greenhouses in Southern California. They nest in cavities and do not require standing water to complete

their life cycle. They are imported accidentally, typically with shipments of ornamental tropical plants and are also in the pet trade.

"Coqui frog is a brown or gray-brown frog that is 1.25-2.25 inches long. Its eyes are gold, golden-brown, or brown, and it has toe disks (toepads) for climbing. The markings on the back of coqui frogs vary from no pattern, to one or two broad cream stripes, v-shaped marks, spots, blotches, or an ill-defined pale band or "M" between the shoulders. The call of male coqui is a loud 'ko-KEE'.

"There is potential for suitable habitat for this species to increase in Southern California due to climate change. So far, they have only been reported from one site in Southern California. If established in California, they may compete with small native predators such as birds, reptiles and amphibians for insect prey.

**"Channeled apple snail (*Pomacea canaliculata*)**

The channeled apple snail is native to a large portion of South America and has become established in the southern parts of the continental United States and Hawaii. It is tolerant of a wide range of salinities and temperatures. It has the ability to forage both in and out of water through the use of a gill and a lung. This species is sold in the pet and aquarium trade.

"The size of channeled apple snails varies from approximately 1.5 to 2.5 inches wide and approximately 1.75 - 3 inches high depending on the conditions. The color varies completely yellow and green (cultivated forms) to brown with or without dark spiral bands (wild form). The channeled apple snail is easily distinguished from other apple snails by the pink egg mass laid above the surface of the water away from predatory fish.

"The channeled apple snail is a host for the parasitic rat lung worm (*Angiostrongylus cantonensis*), which can infect humans. The channeled apple snail has a voracious appetite for plants, including aquatic and terrestrial vegetation. It can cause a great deal of damage to aquatic habitat, ornamental plants, and agricultural crops, including rice.

**"Abalone (all non-native species of genus *Haliotis*)**

The genus *Haliotis* has a worldwide distribution. The family has unmistakable characteristics: the shell is rounded to oval, with two to three whorls, and the last one auriform, grown into a large 'ear', giving rise to the common name 'ear-shell'. The body whorl has a series of holes — four to ten depending on the species, near the anterior margin. Abalones reach maturity at a relatively small size. Their fecundity is high and increases with size (from 10,000 to 11 million eggs at a time). The adults are herbivores and feed on macroalgae. Their sizes vary from about 0.75 inches (*Haliotis pulcherrima*) to about 8 inches or more (*Haliotis rufescens*) in length.

"Under current regulations mollusks destined to terminal food or hobby aquarium markets are specifically exempted from the need for an importation permit, provided that they are not intended to be placed into waters of the state, or waters that are discharged to waters of the state. Effectively, there is no control over importation and other operational practices of abalone importers.

"Mass mortalities of wild and cultured abalone have recently occurred in various locations worldwide, and have been shown to be caused by viruses that potentially could infect some or all of California's eight abalone species. None of these viruses are known to occur in California or elsewhere in the Eastern Pacific. Native abalone populations at risk include recovering Southern and Central California populations (including a federal ESA-listed species), North Coast red abalone populations and those held at a variety of commercial farms and restoration-related culture facilities statewide. Associated activities that could be impacted include the North coast recreational fishery, commercial abalone farming, a potential San Miguel Island commercial fishery, and restoration activities.

"Abalone disease agents could contact waters of the state via holding infected abalone at facilities or restaurants in marine settings that illegally discharge water from on-site tanks, through unintentional escapement and through ritual release of abalone directly into state waters. Although the potential for exposure of native abalone to foreign pathogens via these routes is relatively low, the potential impact is extremely high.

"Preventing exposure is the most cost effective method of disease management. This requires control over the non-native abalone importation process, both for non-native abalone initially entering California and non-native abalone that is being transported and held at various locations within the state. Including the non-native species of the genus, *Haliotis*, in the restricted animal list is an appropriate and straightforward means of achieving the necessary regulatory control. It will also incidentally provide documentation could be useful in controlling an outbreak of disease, should that occur.

#### "Mute Swan (*Cygnus olor*)

Mute swans are native to Europe and Asia, and were successfully introduced into North America in the early 1900's. Feral mute swans inhabit mostly estuary and marsh habitats throughout their range in North America and locally, have been found to be reproducing in the Petaluma Marsh region. In 2007, DFG staff observed feral mute swans in the Suisun Marsh region.

"They are best distinguished from North American swans by the knob at the base of the upper bill, and the color of the bill itself, which is orange, with the tip and base colored black. Also, mute swans hold their necks in a curved position while swimming, while tundra swans hold their necks straight up. Another difference between these two species is that the tundra swan population is migratory, while mute-swans are mostly non-migratory.

"Since swan species feed primarily on submerged aquatic vegetation (SAV hereafter), they have the ability to reduce SAV by 95% in introduced areas. Adult mute swans consume 35-43% of their weight on a daily basis. In addition, feeding behavior causes uprooting and damage to other plant species. These types of impacts reduce the carrying capacity of habitat for wintering and breeding waterbirds and waterfowl. Reductions in SAV have also been documented to result in decreased habitat and populations for fish, shellfish, and macroinvertebrates.

**"Furthermore, mute swans are highly aggressive and do not socially aggregate with other species during winter. Due to their size and aggressiveness, mute swans are capable of injuring people and attacks on humans have been documented.**

**"Proposal Overview**

**Currently in California, it is legal to import, transport or possess the animals described above. The Department requests the Commission consider the proposed amendments to Section 671 to add the above six species and two genera to the list of restricted species.**

**"If this change is adopted, it would be unlawful to import, transport, or possess alive individuals of these animals except under a permit issued by the Department, although for one species (mute swans) existing specimens in captivity would be allowed without permit. This section contains the list of restricted species that are unlawful for any person to import, export, transport, maintain, dispose or use except as authorized in a permit issued by the department.**

**"Regulatory control over these animals is needed because they pose a threat to native fish and wildlife populations through competition for food, predation, alteration of habitats and/or as potential sources of introducing diseases or parasites to native fish and wildlife.**

**"Other non-substantive revisions for simplification and clarity purposes are proposed. In Subsection 671(c)(1)(I), lines 1. and 2. are replaced by 'all species (D)' for simplification. In Subsection 671(c)(5)(A), 'the species' is removed from the beginning of lines 1. and 2. for clarity.**

**Exhibit No. 26** contains a copy of the Department's Initial Statement of Reasons and with the text of the regulations in strikeout/underline format.

Letter dated October 23, 2007, to the Department, John McCamman, Acting Director from John Carlson Jr., Executive Director, Fish and Game Commission:

Request to Publish Notice of Commission Intent to Amend Section 671, Title 14, CCR, Re: Importation, Transportation, and Possession of Live Restricted Animals

The Commission, at its October 12, 2007, meeting in Concord, authorized staff to publish notice of Commission intent to amend Section 671, Title 14, CCR, regarding importation, transportation, and possession of live restricted animals. The Commission will receive public testimony on proposed changes to these regulations at its November 2, 2007, meeting in Sacramento.

**Action Summary**

Public testimony was heard and the Commission unanimously authorized staff to publish notice of its intent to amend regulations regarding the importation, transportation, and possession of live restricted animals.

**November 2, 2007** - RECEIPT OF PUBLIC TESTIMONY ON PROPOSED CHANGES TO SECTION 671, TITLE 14, CCR, RE: IMPORTATION, TRANSPORTATION, AND POSSESSION OF LIVE RESTRICTED ANIMALS. (Note: This item includes the Department update regarding barramundi. The adoption hearing is scheduled for December 7, 2007, in Sacramento.)

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### Summary of Issue

This item is scheduled for receipt of public testimony on proposals to amend Section 671, Title 14, CCR, regarding importation, transportation, and possession of live restricted animals. This item also includes the Department's update regarding barramundi. As background, the Commission at its October 12, 2007, meeting authorized staff to publish notice of its intent to amend these regulations. That notice has been published.

**The Department's proposal summarized below was provided at the Commission's October 11, 2007, meeting and no changes have been made:**

**"This proposed regulation change would add seven species and two genera to the Restricted Animal List in Section 671 of Title 14. The animals listed below are non-native invasive species. They pose a threat to native fish and wildlife populations through competition for food, predation, alteration of habitats and/or as potential sources of introducing diseases or parasites to native fish and wildlife.**

**"Prevention is the most cost effective manner of managing these species, as control and eradication projects are very costly once an invasive species is released and establishes in the wild. A number of species and genera warrant addition to the Section 671 list in order to prevent their introduction into the state's wildlands or control the spread of species that have already been introduced. Although several of the species listed below are already known to exist in California, the control of these species is still possible, and inclusion in the list of Restricted Animals identifies these species as a threat to native wildlife and habitats. Once they are listed, partner agencies, like the Department of Food and Agriculture, have authority to undertake control actions.**

### **"Proposed Taxa Not Yet Known in California**

- **Largescale silver carp (*Hypophthalmichthys harmandi*)**
- **Black carp (*Mylopharyngodon piceus*)**
- **Barramundi (*Lates calcarifer*)**
- **Abalone (all non-native species of genus *Haliotis*)**

### **Proposed Taxa Already Present in California**

- **Watersnake (all species of genus *Nerodia*)**
- **Coqui frog (*Eleutherodactylus coqui*)**
- **Channeled apple snail (*Pomacea canaliculata*)**
- **Mute swan (*Cygnus olor*) (except for mute swans possessed before January 1, 2008)**

"The background information that follows provides some basic information about the species being proposed for addition to the restricted species list and the threats that they pose to native fish and wildlife resources.

#### "Background

##### Largescale silver carp (*Hypophthalmichthys harmandi*)

Until recently, this species was considered a subspecies of silver carp (*H. molitrix*), which is already on California's restricted animal list (i.e. Section 671 list). The two fish are very similar plankton feeders with potential to compete with native fish larvae and invertebrates, which in turn, are the food base for many larger fish and wildlife species. Adding this newly split-off species to Section 671 essentially closes a loophole that could be used to import animals that the Commission intended to restrict when Silver carp was added to the list.

##### "Black Carp (*Mylopharyngodon piceus*)

The natural range of black carp is drainages feeding into the Pacific Ocean in eastern Asia, including parts of China, Russia and possibly northern Vietnam. They were originally introduced into the United States as a 'contaminant' in grass carp importations and were subsequently intentionally imported by fish farmers for yellow grub control and as a food fish.

"Black carp is a blackish-brown fish with blackish-grey fins and an elongated and laterally compressed body. They can typically grow to more than 3 feet in length and weigh, on average, 33 pounds. Young black carp are difficult to distinguish from young grass carp (*Ctenopharyngodon idella*), another non-native species. Adults may be distinguished externally by the color and the more cylindrical form of the body, and internally by the pharyngeal teeth.

"Black carp are molluscivores (mussel and snail feeders) but also eat freshwater shrimp, crawfish, and insects. At all life stages, black carp will compete for food with native species. If introduced or established, black carp are likely to have a considerable impact on native mussel and snail populations. Native fish, turtles, birds, including waterfowl, and vertebrates, such as raccoons, otters, and muskrats, are likely to be affected through competition for food.

"In addition to the threat of their predatory behavior and its resulting impacts, the black carp may also have other impacts on our aquatic ecosystems including the transfer of pathogens and risk to threatened or endangered native species through predation.

##### "Barramundi (*Lates calcarifer*)

Barramundi are found in northern Australia and the Indo-West Pacific region. They are not currently known to exist in California. At different life stages, barramundi move between salt and freshwater habitats. Mature animals are located in estuarine/coastal areas and older juveniles are found in the upper reaches of rivers.

"The fish are greenish-bronze along the back, silver along the sides, shading to white on their bellies. Juveniles have creamy and dark blotches, and may have yellowish pelvic and tail fins. Most barramundi start life as males, reaching maturity at around 3-4 years of age and later change gender and become females,

usually at around age 5. They can reach weights of up to 132 pounds. Barramundi are predators with a diet of fish and crustaceans.

"The breeding and rearing of barramundi commenced in the early 1980's and has resulted in the development of a significant aquaculture industry both in Australia and in South East Asia (including temperate areas such as South Australia). An area of particular concern in the farming of barramundi is the occurrence of an associated virus (Nodavirus). Barramundi pose a threat to California's native fisheries through predation, competition for food and transmission of diseases and parasites.

**"Watersnake (all species of the genus *Nerodia*)**

There are 10 species and 15 subspecies that are currently recognized as belonging to the genus *Nerodia*. They are all from North America, with their natural range occurring east of the Rocky Mountains and south into Mexico. Three isolated occurrences are known to currently exist in California in the cities of Folsom, Sacramento Co; Roseville, Placer Co., and the community of Harbor City, Los Angeles Co. These populations are thought to have started from pets that were released.

"The coloration of these snakes varies, but most individuals have earth-tone background coloration with lighter-colored crossbands running the length of the snake. Most individuals feature a dark stripe from eye to angle of jaw. It is common for *Nerodia* to become darker as they grow, and larger individuals may be completely black. They are generalist, mid-level carnivores, primarily eating amphibians and fish. The snakes themselves are prey for larger wading birds and raptors. This species has a high rate of reproduction and has developed a substantial population in Folsom over a relatively short period of time.

"The concern is that *Nerodia* will impact native fish and wildlife populations through predation and competition. Of particular concern is the potential for impacts to the Sacramento-area populations of giant garter snake (*Thamnophis gigas*), which is state and federally listed as threatened.

**"Coqui frog (*Eleutherodactylus coqui*)**

Coqui frogs are native to Puerto Rico and have become a serious pest in Hawaii, where the populations are very dense and the calling noises are considered an auditory disturbance to residents and tourists. They survive in warm, moist environments that might be encountered in gardens and greenhouses in Southern California. They nest in cavities and do not require standing water to complete their life cycle. They are imported accidentally, typically with shipments of ornamental tropical plants and are also in the pet trade.

"Coqui frog is a brown or gray-brown frog that is 1.25-2.25 inches long. Its eyes are gold, golden-brown, or brown, and it has toe disks (toepads) for climbing. The markings on the back of coqui frogs vary from no pattern, to one or two broad cream stripes, v-shaped marks, spots, blotches, or an ill-defined pale band or "M" between the shoulders. The call of male coqui is a loud 'ko-KEE'.

"There is potential for suitable habitat for this species to increase in Southern California due to climate change. So far, they have only been reported from one

site in Southern California. If established in California, they may compete with small native predators such as birds, reptiles and amphibians for insect prey.

**"Channeled apple snail (*Pomacea canaliculata*)**

The channeled apple snail is native to a large portion of South America and has become established in the southern parts of the continental United States and Hawaii. It is tolerant of a wide range of salinities and temperatures. It has the ability to forage both in and out of water through the use of a gill and a lung. This species is sold in the pet and aquarium trade.

"The size of channeled apple snails varies from approximately 1.5 to 2.5 inches wide and approximately 1.75 - 3 inches high depending on the conditions. The color varies completely yellow and green (cultivated forms) to brown with or without dark spiral bands (wild form). The channeled apple snail is easily distinguished from other apple snails by the pink egg mass laid above the surface of the water away from predatory fish.

"The channeled apple snail is a host for the parasitic rat lung worm (*Angiostrongylus cantonensis*), which can infect humans. The channeled apple snail has a voracious appetite for plants, including aquatic and terrestrial vegetation. It can cause a great deal of damage to aquatic habitat, ornamental plants, and agricultural crops, including rice.

**"Abalone (all non-native species of genus *Haliotis*)**

The genus *Haliotis* has a worldwide distribution. The family has unmistakable characteristics: the shell is rounded to oval, with two to three whorls, and the last one auriform, grown into a large 'ear', giving rise to the common name 'ear-shell'. The body whorl has a series of holes — four to ten depending on the species, near the anterior margin. Abalones reach maturity at a relatively small size. Their fecundity is high and increases with size (from 10,000 to 11 million eggs at a time). The adults are herbivores and feed on macroalgae. Their sizes vary from about 0.75 inches (*Haliotis pulcherrima*) to about 8 inches or more (*Haliotis rufescens*) in length.

"Under current regulations mollusks destined to terminal food or hobby aquarium markets are specifically exempted from the need for an importation permit, provided that they are not intended to be placed into waters of the state, or waters that are discharged to waters of the state. Effectively, there is no control over importation and other operational practices of abalone importers.

"Mass mortalities of wild and cultured abalone have recently occurred in various locations worldwide, and have been shown to be caused by viruses that potentially could infect some or all of California's eight abalone species. None of these viruses are known to occur in California or elsewhere in the Eastern Pacific. Native abalone populations at risk include recovering Southern and Central California populations (including a federal ESA-listed species), North Coast red abalone populations and those held at a variety of commercial farms and restoration-related culture facilities statewide. Associated activities that could be impacted include the North coast recreational fishery, commercial abalone farming, a potential San Miguel Island commercial fishery, and restoration activities.

"Abalone disease agents could contact waters of the state via holding infected abalone at facilities or restaurants in marine settings that illegally discharge water from on-site tanks, through unintentional escapement and through ritual release of abalone directly into state waters. Although the potential for exposure of native abalone to foreign pathogens via these routes is relatively low, the potential impact is extremely high.

"Preventing exposure is the most cost effective method of disease management. This requires control over the non-native abalone importation process, both for non-native abalone initially entering California and non-native abalone that is being transported and held at various locations within the state. Including the non-native species of the genus, *Haliotis*, in the restricted animal list is an appropriate and straightforward means of achieving the necessary regulatory control. It will also incidentally provide documentation could be useful in controlling an outbreak of disease, should that occur.

**"Mute Swan (*Cygnus olor*)**

Mute swans are native to Europe and Asia, and were successfully introduced into North America in the early 1900's. Feral mute swans inhabit mostly estuary and marsh habitats throughout their range in North America and locally, have been found to be reproducing in the Petaluma Marsh region. In 2007, DFG staff observed feral mute swans in the Suisun Marsh region.

"They are best distinguished from North American swans by the knob at the base of the upper bill, and the color of the bill itself, which is orange, with the tip and base colored black. Also, mute swans hold their necks in a curved position while swimming, while tundra swans hold their necks straight up. Another difference between these two species is that the tundra swan population is migratory, while mute-swans are mostly non-migratory.

"Since swan species feed primarily on submerged aquatic vegetation (SAV hereafter), they have the ability to reduce SAV by 95% in introduced areas. Adult mute swans consume 35-43% of their weight on a daily basis. In addition, feeding behavior causes uprooting and damage to other plant species. These types of impacts reduce the carrying capacity of habitat for wintering and breeding waterbirds and waterfowl. Reductions in SAV have also been documented to result in decreased habitat and populations for fish, shellfish, and macroinvertebrates.

"Furthermore, mute swans are highly aggressive and do not socially aggregate with other species during winter. Due to their size and aggressiveness, mute swans are capable of injuring people and attacks on humans have been documented.

**Proposal Overview**

Currently in California, it is legal to import, transport or possess the animals described above. The Department requests the Commission consider the proposed amendments to Section 671 to add the above six species and two genera to the list of restricted species.

**"If this change is adopted, it would be unlawful to import, transport, or possess alive individuals of these animals except under a permit issued by the Department, although for one species (mute swans) existing specimens in captivity would be allowed without permit. This section contains the list of restricted species that are unlawful for any person to import, export, transport, maintain, dispose or use except as authorized in a permit issued by the department.**

**"Regulatory control over these animals is needed because they pose a threat to native fish and wildlife populations through competition for food, predation, alteration of habitats and/or as potential sources of introducing diseases or parasites to native fish and wildlife.**

**"Other non-substantive revisions for simplification and clarity purposes are proposed. In Subsection 671(c)(1)(I), lines 1. and 2. are replaced by 'all species (D)' for simplification. In Subsection 671(c)(5)(A), 'the species' is removed from the beginning of lines 1. and 2. for clarity.**

**Exhibit No. 17** contains a copy of the Department's Initial Statement of Reasons and with the text of the regulations in strikeout/underline format. **Exhibit No. 17** also includes an issue paper to add barramundi to the Restricted Species List.

### **Action Summary**

The Commission received presentations by the Department regarding the proposed changes to Section 671, Title 14, CCR, regarding the importation, transportation, and possession of live restricted animals and discussed item.

Letter dated November 8, 2007, to the Department, John McCamman, Acting Director from John Carlson, Jr., Executive Director, Fish and Game Commission:

Receipt of Public Testimony on Proposed Changes to Section 671, Title 14, CCR, Re: Importation, Transportation, and Possession of Live Restricted Animals

The Commission, at its November 2, 2007, meeting in Sacramento, received public testimony on proposed changes to Section 671, Title 14, CCR, regarding importation, transportation, and possession of live restricted animals. The Commission is scheduled for possible adoption of these proposed changes at its December 7, 2007, meeting in Sacramento.

The Commission looks forward to a broader discussion on aquaculture at a future meeting.

**December 7, 2007 - DISCUSSION AND POSSIBLE ADOPTION OF PROPOSED CHANGES TO SECTION 671, TITLE 14, CCR, RE: IMPORTATION, TRANSPORTATION, AND POSSESSION OF LIVE RESTRICTED ANIMALS.**

## Summary of Issue

This item is scheduled for discussion and possible adoption of proposed changes to Section 671, Title 14, CCR, regarding importation, transportation, and possession of live restricted animals. As background, the Commission at its October 12, 2007, meeting authorized staff to publish notice of its intent to amend these regulations. That notice has been published. The Commission also received public testimony at its November 2, 2007, meeting in Sacramento.

**The Department's proposal summarized below was provided at the Commission's October 11, 2007, meeting and no changes have been made:**

**"This proposed regulation change would add seven species and two genera to the Restricted Animal List in Section 671 of Title 14. The animals listed below are non-native invasive species. They pose a threat to native fish and wildlife populations through competition for food, predation, alteration of habitats and/or as potential sources of introducing diseases or parasites to native fish and wildlife.**

**"Prevention is the most cost effective manner of managing these species, as control and eradication projects are very costly once an invasive species is released and establishes in the wild. A number of species and genera warrant addition to the Section 671 list in order to prevent their introduction into the state's wildlands or control the spread of species that have already been introduced. Although several of the species listed below are already known to exist in California, the control of these species is still possible, and inclusion in the list of Restricted Animals identifies these species as a threat to native wildlife and habitats. Once they are listed, partner agencies, like the Department of Food and Agriculture, have authority to undertake control actions.**

### **"Proposed Taxa Not Yet Known in California**

- **Largescale silver carp (*Hypophthalmichthys harmandi*)**
- **Black carp (*Mylopharyngodon piceus*)**
- **Barramundi (*Lates calcarifer*)**
- **Abalone (all non-native species of genus *Haliotis*)**

### **"Proposed Taxa Already Present in California**

- **Watersnake (all species of genus *Nerodia*)**
- **Coqui frog (*Eleutherodactylus coqui*)**
- **Channeled apple snail (*Pomacea canaliculata*)**
- **Mute swan (*Cygnus olor*) (except for mute swans possessed before January 1, 2008)**

**"The background information that follows provides some basic information about the species being proposed for addition to the restricted species list and the threats that they pose to native fish and wildlife resources.**

## **"Background**

### **Largescale silver carp (*Hypophthalmichthys harmandi*)**

Until recently, this species was considered a subspecies of silver carp (*H. molitrix*), which is already on California's restricted animal list (i.e. Section 671 list). The two fish are very similar plankton feeders with potential to compete with native fish larvae and invertebrates, which in turn, are the food base for many larger fish and wildlife species. Adding this newly split-off species to Section 671 essentially closes a loophole that could be used to import animals that the Commission intended to restrict when Silver carp was added to the list.

### **"Black Carp (*Mylopharyngodon piceus*)**

The natural range of black carp is drainages feeding into the Pacific Ocean in eastern Asia, including parts of China, Russia and possibly northern Vietnam. They were originally introduced into the United States as a 'contaminant' in grass carp importations and were subsequently intentionally imported by fish farmers for yellow grub control and as a food fish.

"Black carp is a blackish-brown fish with blackish-grey fins and an elongated and laterally compressed body. They can typically grow to more than 3 feet in length and weigh, on average, 33 pounds. Young black carp are difficult to distinguish from young grass carp (*Ctenopharyngodon idella*), another non-native species. Adults may be distinguished externally by the color and the more cylindrical form of the body, and internally by the pharyngeal teeth.

"Black carp are molluscivores (mussel and snail feeders) but also eat freshwater shrimp, crawfish, and insects. At all life stages, black carp will compete for food with native species. If introduced or established, black carp are likely to have a considerable impact on native mussel and snail populations. Native fish, turtles, birds, including waterfowl, and vertebrates, such as raccoons, otters, and muskrats, are likely to be affected through competition for food.

"In addition to the threat of their predatory behavior and its resulting impacts, the black carp may also have other impacts on our aquatic ecosystems including the transfer of pathogens and risk to threatened or endangered native species through predation.

### **"Barramundi (*Lates calcarifer*)**

Barramundi are found in northern Australia and the Indo-West Pacific region. They are not currently known to exist in California. At different life stages, barramundi move between salt and freshwater habitats. Mature animals are located in estuarine/coastal areas and older juveniles are found in the upper reaches of rivers.

"The fish are greenish-bronze along the back, silver along the sides, shading to white on their bellies. Juveniles have creamy and dark blotches, and may have yellowish pelvic and tail fins. Most barramundi start life as males, reaching maturity at around 3-4 years of age and later change gender and become females, usually at around age 5. They can reach weights of up to 132 pounds. Barramundi are predators with a diet of fish and crustaceans.

"The breeding and rearing of barramundi commenced in the early 1980's and has resulted in the development of a significant aquaculture industry both in Australia and in South East Asia (including temperate areas such as South Australia). An area of particular concern in the farming of barramundi is the occurrence of an associated virus (Nodavirus). Barramundi pose a threat to California's native fisheries through predation, competition for food and transmission of diseases and parasites.

**"Watersnake (all species of the genus *Nerodia*)**

There are 10 species and 15 subspecies that are currently recognized as belonging to the genus *Nerodia*. They are all from North America, with their natural range occurring east of the Rocky Mountains and south into Mexico. Three isolated occurrences are known to currently exist in California in the cities of Folsom, Sacramento Co; Roseville, Placer Co., and the community of Harbor City, Los Angeles Co. These populations are thought to have started from pets that were released.

"The coloration of these snakes varies, but most individuals have earth-tone background coloration with lighter-colored crossbands running the length of the snake. Most individuals feature a dark stripe from eye to angle of jaw. It is common for *Nerodia* to become darker as they grow, and larger individuals may be completely black. They are generalist, mid-level carnivores, primarily eating amphibians and fish. The snakes themselves are prey for larger wading birds and raptors. This species has a high rate of reproduction and has developed a substantial population in Folsom over a relatively short period of time.

"The concern is that *Nerodia* will impact native fish and wildlife populations through predation and competition. Of particular concern is the potential for impacts to the Sacramento-area populations of giant garter snake (*Thamnophis gigas*), which is state and federally listed as threatened.

**"Coqui frog (*Eleutherodactylus coqui*)**

Coqui frogs are native to Puerto Rico and have become a serious pest in Hawaii, where the populations are very dense and the calling noises are considered an auditory disturbance to residents and tourists. They survive in warm, moist environments that might be encountered in gardens and greenhouses in Southern California. They nest in cavities and do not require standing water to complete their life cycle. They are imported accidentally, typically with shipments of ornamental tropical plants and are also in the pet trade.

"Coqui frog is a brown or gray-brown frog that is 1.25-2.25 inches long. Its eyes are gold, golden-brown, or brown, and it has toe disks (toepads) for climbing. The markings on the back of coqui frogs vary from no pattern, to one or two broad cream stripes, v-shaped marks, spots, blotches, or an ill-defined pale band or "M" between the shoulders. The call of male coqui is a loud 'ko-KEE'.

"There is potential for suitable habitat for this species to increase in Southern California due to climate change. So far, they have only been reported from one site in Southern California. If established in California, they may compete with small native predators such as birds, reptiles and amphibians for insect prey.

**"Channeled apple snail (*Pomacea canaliculata*)**

The channeled apple snail is native to a large portion of South America and has become established in the southern parts of the continental United States and Hawaii. It is tolerant of a wide range of salinities and temperatures. It has the ability to forage both in and out of water through the use of a gill and a lung. This species is sold in the pet and aquarium trade.

"The size of channeled apple snails varies from approximately 1.5 to 2.5 inches wide and approximately 1.75 - 3 inches high depending on the conditions. The color varies completely yellow and green (cultivated forms) to brown with or without dark spiral bands (wild form). The channeled apple snail is easily distinguished from other apple snails by the pink egg mass laid above the surface of the water away from predatory fish.

"The channeled apple snail is a host for the parasitic rat lung worm (*Angiostrongylus cantonensis*), which can infect humans. The channeled apple snail has a voracious appetite for plants, including aquatic and terrestrial vegetation. It can cause a great deal of damage to aquatic habitat, ornamental plants, and agricultural crops, including rice.

**"Abalone (all non-native species of genus *Haliotis*)**

The genus *Haliotis* has a worldwide distribution. The family has unmistakable characteristics: the shell is rounded to oval, with two to three whorls, and the last one auriform, grown into a large 'ear', giving rise to the common name 'ear-shell'. The body whorl has a series of holes — four to ten depending on the species, near the anterior margin. Abalones reach maturity at a relatively small size. Their fecundity is high and increases with size (from 10,000 to 11 million eggs at a time). The adults are herbivores and feed on macroalgae. Their sizes vary from about 0.75 inches (*Haliotis pulcherrima*) to about 8 inches or more (*Haliotis rufescens*) in length.

"Under current regulations mollusks destined to terminal food or hobby aquarium markets are specifically exempted from the need for an importation permit, provided that they are not intended to be placed into waters of the state, or waters that are discharged to waters of the state. Effectively, there is no control over importation and other operational practices of abalone importers.

"Mass mortalities of wild and cultured abalone have recently occurred in various locations worldwide, and have been shown to be caused by viruses that potentially could infect some or all of California's eight abalone species. None of these viruses are known to occur in California or elsewhere in the Eastern Pacific. Native abalone populations at risk include recovering Southern and Central California populations (including a federal ESA-listed species), North Coast red abalone populations and those held at a variety of commercial farms and restoration-related culture facilities statewide. Associated activities that could be impacted include the North coast recreational fishery, commercial abalone farming, a potential San Miguel Island commercial fishery, and restoration activities.

"Abalone disease agents could contact waters of the state via holding infected abalone at facilities or restaurants in marine settings that illegally discharge water

from on-site tanks, through unintentional escapement and through ritual release of abalone directly into state waters. Although the potential for exposure of native abalone to foreign pathogens via these routes is relatively low, the potential impact is extremely high.

"Preventing exposure is the most cost effective method of disease management. This requires control over the non-native abalone importation process, both for non-native abalone initially entering California and non-native abalone that is being transported and held at various locations within the state. Including the non-native species of the genus, *Haliotis*, in the restricted animal list is an appropriate and straightforward means of achieving the necessary regulatory control. It will also incidentally provide documentation could be useful in controlling an outbreak of disease, should that occur.

**"Mute Swan (*Cygnus olor*)**

Mute swans are native to Europe and Asia, and were successfully introduced into North America in the early 1900's. Feral mute swans inhabit mostly estuary and marsh habitats throughout their range in North America and locally, have been found to be reproducing in the Petaluma Marsh region. In 2007, DFG staff observed feral mute swans in the Suisun Marsh region.

"They are best distinguished from North American swans by the knob at the base of the upper bill, and the color of the bill itself, which is orange, with the tip and base colored black. Also, mute swans hold their necks in a curved position while swimming, while tundra swans hold their necks straight up. Another difference between these two species is that the tundra swan population is migratory, while mute-swans are mostly non-migratory.

"Since swan species feed primarily on submerged aquatic vegetation (SAV hereafter), they have the ability to reduce SAV by 95% in introduced areas. Adult mute swans consume 35-43% of their weight on a daily basis. In addition, feeding behavior causes uprooting and damage to other plant species. These types of impacts reduce the carrying capacity of habitat for wintering and breeding waterbirds and waterfowl. Reductions in SAV have also been documented to result in decreased habitat and populations for fish, shellfish, and macroinvertebrates.

"Furthermore, mute swans are highly aggressive and do not socially aggregate with other species during winter. Due to their size and aggressiveness, mute swans are capable of injuring people and attacks on humans have been documented.

**Proposal Overview**

Currently in California, it is legal to import, transport or possess the animals described above. The Department requests the Commission consider the proposed amendments to Section 671 to add the above six species and two genera to the list of restricted species.

"If this change is adopted, it would be unlawful to import, transport, or possess alive individuals of these animals except under a permit issued by the Department, although for one species (mute swans) existing specimens in

**captivity would be allowed without permit. This section contains the list of restricted species that are unlawful for any person to import, export, transport, maintain, dispose or use except as authorized in a permit issued by the department.**

**"Regulatory control over these animals is needed because they pose a threat to native fish and wildlife populations through competition for food, predation, alteration of habitats and/or as potential sources of introducing diseases or parasites to native fish and wildlife.**

**"Other non-substantive revisions for simplification and clarity purposes are proposed. In Subsection 671(c)(1)(I), lines 1. and 2. are replaced by 'all species (D)' for simplification. In Subsection 671(c)(5)(A), 'the species' is removed from the beginning of lines 1. and 2. for clarity.**

**Exhibit No. 18** contains a copy of the Department's Initial Statement of Reasons and Pre-adoption Statement with the text of the regulations in strikeout/underline format. **Exhibit No. 18** also includes a letter and attachment from Mark Drawbridge, California Aquaculture Association, dated November 12, 2007.

### **Action Summary**

The Department gave a presentation on possible aquaculture permit for a restricted species; the Commission unanimously voted to adopt the proposed changes to amend regulations regarding the importation, transportation, and possession of live restricted animals. The Final Statement of Reasons was received from the Department. **The Endorsed file was processed with the Secretary of State on March 13, 2008, and became effective 30 days after March 13, 2008.**

Letter dated December 17, 2007, to the Department, John McCamman, Acting Director, from John Carlson, Jr., Executive Director, Fish and Game Commission:

Discussion and Possible Adoption of Proposed Changes to Section 671, Title 14, CCR, Re: Importation, Transportation, and Possession of Live Restricted Animals

The Commission, at its December 7, 2007, meeting in Sacramento, received public testimony and adopted the proposed changes to Section 671, Title 14, CCR, regarding importation, transportation, and possession of live restricted animals. Pursuant to Section 781.5, Title 14, CCR, and Section 21080.5 of the Public Resources Code, the Commission will file its Notice of Determination with the Secretary for Resources. The Commission will file its rulemaking file with the Office of Administrative Law once it receives the Department's Final Statement.

Please keep the Commission informed on any new developments regarding aquaculture provisions.

**2009**

**March 5, 2009** – Item No. 17 - UPDATE AND POSSIBLE ACTION ON THE COMMISSION'S AUGUST 25, 2006, AUTHORIZATION TO PUBLISH NOTICE OF INTENT TO AMEND SECTION 236, TITLE 14, CCR, TO PROHIBIT THE IMPORTATION OF TURTLES AND FROGS FOR THE LIVE ANIMAL MARKET.

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**May 13, 2009** – Item No. 9 - RECEIPT OF DEPARTMENT OF FISH AND GAME INFORMATIONAL ITEMS.

- (A) RECEIPT OF DEPARTMENT OF FISH AND GAME DIRECTOR'S REPORT.
  - (B) UPDATE ON THE AUTOMATED LICENSE DATA SYSTEM.
  - (C) STATUS UPDATE ON THE REPORT REGARDING LEVELS OF LEAD FOUND IN CALIFORNIA CONDORS DURING 2008. (Note: The Commission is required to issue this report by June 2009, pursuant to Section 3004.5 of the Fish and Game Code.)
  - (D) STATUS OF REPORT CARDS REGARDING STEELHEAD AND SALMON (UNDER 16 YEARS OF AGE).
  - (E) **UPDATE ON POSSIBLE COURSE OF ACTION REGARDING EXOTIC FROGS AND TURTLES.**
  - (F) UPDATE ON HERRING FISHERY.
  - (G) UPDATE ON ENFORCEMENT.
    - 1. SALINAS RIVER ALTERATION.
  - (H) OTHER.
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**Summary of Issue**

This item is scheduled to afford the Department an opportunity to present the Commission with informational items. The Department will be prepared to discuss the above listed items and/or will provide short background memos on each item at, or shortly before the meeting.

**September 3, 2009** – Item No. 7 - RECEIPT OF COMMISSION INFORMATIONAL ITEMS.

- (A) UPDATE ON STATUS OF FINAL STATEMENT OF REASONS REGARDING CHANGES TO SECTION 670.5, TITLE 14, CCR, TO LIST THE LONGFIN SMELT (*Spirinchus thaleichthys*) AS A THREATENED SPECIES.
  - (B) **UPDATE AND POSSIBLE COURSE OF ACTION REGARDING EXOTIC FROGS AND TURTLES.**
  - (C) OTHER.
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### Summary of Issue

This item is scheduled for the Commission to receive informational items from its staff and to afford the Commission an opportunity to discuss items of interest with the Department.

**Exhibit No. 7(B)** contains copies of letters from Miles Young dated June 8, 2009 and R. Judd Hanna dated August 16, 2009.

**October 1, 2009** – Item No. 6 - RECEIPT OF COMMISSION INFORMATIONAL ITEMS.

- (A) UPDATE ON SCOPING MEETING AND REQUEST FOR CLARIFICATION ON POSSIBLE REGULATORY ACTION TO PROHIBIT THE IMPORTATION OF NON-NATIVE FROG AND TURTLE SPECIES.

### Summary of Issue

This item is scheduled for the Commission to receive informational items from its staff and to afford the Commission an opportunity to discuss items of interest with the Department.

**February 3, 2010** – Item No. 5 - SCOPING OF POSSIBLE OPTIONS TO BAN NON-NATIVE FROG AND TURTLE SPECIES.

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### Summary of Issue

This item is scheduled to explore possible options to ban non-native frog and turtle species. The Department will be prepared to discuss options at the meeting, and/or will seek further guidance from the Commission on this matter.

**March 3, 2010** – Item No. 12 – CONSIDERATION AND POSSIBLE ACTION ON THE DEPARTMENT'S DRAFT FINDINGS REGARDING THE DETRIMENTAL EFFECTS OF NON-NATIVE FROGS AND TURTLES.

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### Summary of Issue

This item is scheduled to receive the Department's draft findings regarding the detrimental effects of non-native frogs and turtles.

### Department Recommendation

At the time this analysis was completed, the Department had not provided draft findings to the Commission, but will provide the findings and/or recommendation at the Commission meeting.

**April 8, 2010 – Item No. 25 – POSSIBLE ADOPTION OF COMMISSION POLICY,  
RE: NON-NATIVE FROGS AND TURTLES.**

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Summary of Issue

This item is scheduled for the Commission to possibly adopt its policy regarding non-native frogs and turtles.

Commission Policy

The Fish and Game Commission declares that:

1. The Fish and Game Commission and the Department of Fish and Game have been charged by the Legislature to protect and wisely manage the State's living natural resources and the habitats upon which they depend.
2. The importation of non-native turtles and frogs poses threats not only to the State's native turtles and frogs, but also to the native source populations of the imported turtles and frogs.
3. These threats include, but are not limited to: disease, hybridization, competition, and predation.

Therefore, it is the policy of the Fish and Game Commission that the Department of Fish and Game shall cease issuing importation permits for any live non-native turtles or frogs pursuant to Section 236, Title 14, CCR.

(Adopted: *April 8, 2010*)

**May 20, 2010 Teleconference Meeting**

Email Received May 12, 2010 from Department of Fish and Game, Office of Legislative and External Affairs

The following summarizes a May 12, 2010 email communications from the Department's Office of Legislative and External Affairs:

The Humane Society of the United States is correct, in that state law does not require that animals sold at live animal markets be killed on site prior to sale; (see The Humane Society of the United States Letter in **Exhibit No. 1**). AB24790 required that animals be killed before being skinned, etc. It does not require animals be killed prior to leaving the shop. AB 238 allows local governments to regulate live food sales, including requiring animals be killed at the time of sale. As far as I know, no local governments have adopted such regulations.

Julie Oltmann, Department of Fish and Game

**Exhibit no. 1** contains copies of letters from The Humane Society of the United States, Eric Mills, Pius Lee, Awadalla Awadalla, Fiona Ma (12<sup>th</sup> Assembly District), H. Bradley Shaffer, and Darla K. Brunner.