



# Seafood Marketing: Combating Fraud and Deception

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## Summary

Congress is facing questions of whether the law applicable to fraudulent seafood sales and marketing is clear and enforceable, whether agency enforcement efforts targeting seafood fraud are adequate, and whether the penalties for seafood fraud are a deterrent. Congress may become involved in oversight of how federal agencies are addressing these issues, and legislation related to these concerns may be considered.

With increased seafood imports and decreased monitoring, fraud and deception in seafood marketing is becoming more widespread. The flesh of many fish species is similar in taste and texture and, therefore, it is difficult to identify species in fillet form, especially after preparation for consumption. Thus, it can be relatively easy to substitute an inexpensive species for one of higher value. Inaccurate (low) counts or net weights (“short weighting”) result in consumers receiving less for their money than advertised and anticipated. Overbreadth may cause consumers to pay shrimp prices for excess bread crumbs. Excessive amounts of glaze (overglazing) can deliberately be used to increase the apparent weight, and therefore the apparent value, of the delivered product. In addition, some new treatment procedures by the seafood industry, such as carbon monoxide/tasteless smoke, are being questioned for their potential to deceive consumers. Since food safety and bioterrorism concerns have taken precedence, regulatory agencies have been less able to maintain control of economic fraud.

The extent of this fraud is not well documented. The National Fisheries Institute (NFI) has undertaken an initiative to promote economic integrity within the seafood industry, concentrating on three primary areas:

- transshipment of products subject to antidumping and countervailing duties;
- mislabeling of products or species substitution; and
- mislabeling of weights or counts of products.

The Food and Drug Administration (FDA) is the primary agency responsible for ensuring that food sold in interstate commerce is properly labeled. FDA’s jurisdiction covers seafood and the agency operates an oversight compliance program, the Seafood Regulatory Program, for fishery products. Responsibility for a food product’s safety, wholesomeness, identity, and economic integrity rests with the processor or importer, who must comply with regulations promulgated under the Federal Food, Drug and Cosmetic Act (FFDCA) and the Fair Packaging and Labeling Act (FPLA).

In the 111<sup>th</sup> Congress, provisions were included in H.R. 759 and H.R. 2749 that proposed amending the FFDCA to restrict the use of carbon monoxide in meat, poultry, and seafood. However, on July 29, 2009, the House Committee on Energy and Commerce reported H.R. 2749, amended to remove the section relating to carbon monoxide. S. 1406 was reported by the Senate Committee on Appropriations with report language encouraging FDA to more aggressively combat fraud in segments of the seafood industry.

This report reviews recent incidents of fraud and deception and examines related policy issues.

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**M**edia attention has focused on recent incidents of fraud relating to seafood—restaurants knowingly serving lower-priced fish than identified on menus, lower-priced species marketed commercially as higher-priced species, packaged weights of seafood less than labeled weights, and extra water added to seafood to increase total product weight—raising public concern. Most seafood fraud is based on supplying the consumer with something different from and inferior to the product expected.<sup>1</sup> In some instances, such practices may not be intentional, and the extent of fraud is not well documented. These occurrences have the potential to erode consumer confidence in seafood generally, potentially lowering Americans' consumption of seafood. Congress is facing questions of whether the law applicable to fraudulent seafood sales and marketing is clear and enforceable, whether agency enforcement efforts targeting seafood fraud are adequate, and whether the penalties for seafood fraud are a deterrent.

The primary federal law that addresses mislabeling is the Federal Food, Drug, and Cosmetic Act of 1938 (FFDCA; 21 U.S.C. §§ 301 et seq.), which is administered by the Food and Drug Administration (FDA). The FFDCA, as amended, gives FDA authority over most food regulation and includes (1) definitions elaborating on the concepts of adulteration and misbranding; (2) provisions for control over all labeling of foods in interstate commerce; (3) detailed regulation of safety and wholesomeness of foods; and (4) enforcement remedies available to the agency. In addition, the Fair Packaging and Labeling Act (FPLA; 15 U.S.C. §§ 1451 et seq.) requires that consumers of packaged commodities be provided with accurate information as to its contents. Food products falling within the scope of the FFDCA that are introduced into interstate commerce in violation of the FPLA and its regulations are deemed to be misbranded within the meaning of the FFDCA. The Chemical Services Group of the National Marine Fisheries Service (National Oceanic and Atmospheric Administration, Department of Commerce) at the National Seafood Inspection Laboratory in Pascagoula, MS, provides analytical testing to identify fish species. Applicable law is discussed in detail below. Numerous issues concerning seafood safety also exist; for more analysis of this aspect, see CRS Report RS22797, *Seafood Safety: Background and Issues*, by Harold F. Upton.

## **Fraudulent or Deceptive Practices**

### **Mislabeling or Substituting Species**

The differences in the taste and texture of different fish species' flesh are subtle, and therefore it is frequently difficult to identify a species in fillet form, especially after it is prepared for consumption. Thus, it is relatively easy to substitute an inexpensive species for one of higher value. Over the nine-year period of FY1988-FY1997,<sup>2</sup> routine examinations of seafood products by the National Marine Fisheries Service's National Seafood Inspection Laboratory (NSIL) found that 37% of fish and 13% of other seafood (e.g., shellfish, edible seaweed) from randomly selected vendors were mislabeled.<sup>3</sup>

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<sup>1</sup> Ian Doré, *Seafood Scams and Frauds and How to Protect Yourself!* (Toms River, NJ: Urner Barry Publications, Inc., 1992).

<sup>2</sup> In September 2008, NSIL was contacted by CRS, but was unable to provide more recent statistics.

<sup>3</sup> See <http://sst.ifas.ufl.edu/22ndAnn/file08.pdf>.

Identification of fish flesh usually requires DNA testing. There is debate within the seafood laboratory testing community about the accuracy of public DNA sequence databases. Public databases seldom use validated fish standards and thus are likely to contain incomplete and/or inaccurate DNA sequences. Although most regulatory agencies are developing DNA methods for species identification,<sup>4</sup> some of these agencies continue to depend on a method—isoelectric focusing electrophoresis of soluble muscle proteins—that is unreliable for species identification of heat-processed or dried fish products.<sup>5</sup> Some U.S. seafood importers and distributors employ private companies to conduct random testing to eliminate blatant species substitution and minimize unintentional species substitution. DNA methods for fish species identification are not yet officially recognized by FDA, but the agency is working with an international group, FISHBOL,<sup>6</sup> to develop a qualified database of DNA sequences from taxonomically verified fish specimens. This database should be available for use within three years.

Fraud can be perpetuated in several ways. Unfair and deceptive trade practices occur when restaurants misrepresent menu items to their patrons by substituting other (often less desirable and less expensive) fish for an item described as a higher-valued species. Fraud also occurs at the manufacturing level, as in American Samoa, where six tuna cannery workers were convicted for their involvement in falsely labeling hundreds of cans as albacore tuna when the cans were actually filled with less expensive wahoo, and selling them to local stores.<sup>7</sup> Some distributors have knowingly sold restaurants and retailers lower-valued species, claiming that they are different species of higher value.

While species substitution may be intentional for certain species and products because of their differing values, it also occurs unintentionally where species identities are easily mistaken. **Table 1** provides a list of some commonly substituted species. Additional instances of mislabeling include imported farmed salmon being falsely identified as wild Alaska salmon and frozen seafood being marketed as fresh product, as well as confusion over seafood being marketed as “organic.” In 2009, a Washington state man was fined \$160,000 and sentenced to 30 days in jail for intentionally mislabeling 136,000 pounds of turbot from China as much higher priced U.S. halibut.<sup>8</sup> Since large quantities of seafood are imported for U.S. consumption, some portion of the mislabeling problem undoubtedly originates with foreign suppliers.<sup>9</sup> To address this, FDA has issued an import alert on species substitution, providing guidance to agency field personnel about the manufacturers and/or products at issue.<sup>10</sup> Asian catfish (basa and tra) may illustrate the magnitude of the problem. Although import volumes exceed 50 million pounds annually for these species combined, they are difficult to find correctly identified in the domestic marketplace.<sup>11</sup>

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<sup>4</sup> Rosalee S. Rasmussen and Michael T. Morrissey, “DNA-Based Methods for the Identification of Commercial Fish and Seafood Species,” *Comprehensive Reviews in Food Science and Food Safety*, v. 7 (2008): 280-295.

<sup>5</sup> For a technical description, see [http://www.chemsoc.org/ExemplarChem/entries/2003/leeds\\_chromatography/chromatography/ief.htm](http://www.chemsoc.org/ExemplarChem/entries/2003/leeds_chromatography/chromatography/ief.htm); also see [http://microbac.com/technical\\_articles/news\\_detail.php?news\\_ID=14](http://microbac.com/technical_articles/news_detail.php?news_ID=14).

<sup>6</sup> See <http://www.fishbol.org/index.php>. The Fish Barcode of Life (FISHBOL) Initiative is a global effort to assemble a standardized reference DNA sequence library for all fish species, and functions as a portal to the more comprehensive BoLD (Barcode of Life Database).

<sup>7</sup> “Wahoo Scam Yields Six Employees Sentenced to Probation,” Samoa News (June 23, 2007); available at <http://www.samoanews.com/monday/story3.html>.

<sup>8</sup> For more information, see [http://www.nmfs.noaa.gov/mediacenter/docs/turbot\\_for\\_halibut\\_fraud\\_may09.pdf](http://www.nmfs.noaa.gov/mediacenter/docs/turbot_for_halibut_fraud_may09.pdf).

<sup>9</sup> This is sometimes done to avoid U.S. import tariffs; for example, see <http://www.justice.gov/opa/pr/2008/October/08-enrd-967.html>.

<sup>10</sup> For FDA import alert #16-04, see [http://www.fda.gov/ora/fiars/ora\\_import\\_ia1604.html](http://www.fda.gov/ora/fiars/ora_import_ia1604.html).

<sup>11</sup> For an example of mislabeling these imports, see [http://agi.alabama.gov/press\\_releases/may-19-2006—sparks-warns-\(continued...\)](http://agi.alabama.gov/press_releases/may-19-2006—sparks-warns-(continued...))

**Table I. Examples of Commonly Substituted Seafood**  
(less expensive products are in column B)

<b>A</b>	<b>B</b>
Red Snapper	Rockfish
Mahi Mahi	Yellowtail ( <i>Seriola lalandi</i> )
Swordfish	Mako Shark
Orange Roughy	Oreo Dory or John Dory
Cod	Alaska Pollock
Halibut	Sea Bass
Dover Sole	Arrowtooth Flounder
Red Drum	Black Drum
Snapper ( <i>Lutjanus</i> sp.)	Tilapia
Grouper	Basa or tra
Lake or Yellow Perch	White Perch or Zander
Caviar (Sturgeon species)	Paddlefish or other fish roe
Walleye	Sauger or Alaska Pollock
Chum Salmon	Pink Salmon
Salmon	Steelhead Trout
Pacific salmon	Atlantic salmon
Blue Crabmeat	Imported Crabmeat
Wild-Caught Salmon	Farm-Raised Salmon

**Source:** Table contents modified from <http://www.cfsan.fda.gov/~frf/econ.html>.

Problems can arise from substitution at the restaurant level, misrepresentation by the restaurant supplier, or product misidentification anywhere in the harvesting and processing system. It is often difficult to determine who is at fault, especially if there is collusion. One recent study, based on an analysis of mitochondrial DNA sequences, revealed that 77% of the fish sold in the U.S. marketplace as red snapper, *Lutjanus campechanus*, belonged to other species of the Lutjanidae family, and could not legally be labeled as “red snapper.”<sup>12</sup> In early 2007, Alabama agriculture inspectors targeted 35 Gulf of Mexico restaurants and seafood markets for sampling after a Mobile, AL, television station used DNA testing and found that only one in ten samples from restaurants advertised as grouper actually were this fish.<sup>13</sup> Alabama state law makes a restaurant or distributor subject to a fine of \$5,000 per offense for selling falsely labeled seafood products. On September 3, 2008, the Florida Attorney General’s Office announced a settlement with Sysco

(...continued)

[gulf-coast-businesses—restaurants-of-mislabeled-basa?pn=2](http://www.gulf-coast-businesses—restaurants-of-mislabeled-basa?pn=2). See also <http://www.suffolkvanews.com/virginia/catfish-conspiracy.php>.

<sup>12</sup> P.B. Marko, et al., “Mislabelling of a Depleted Reef Fish,” *Nature*, v. 430(2004):309-310. FDA policy states that labeling or sale of any fish other than *Lutjanus campechanus* as red snapper constitutes a misbranding in violation of the FFDCFA.

<sup>13</sup> See [http://wkrg.com/news/article/whats\\_on\\_your\\_plate/3561/](http://wkrg.com/news/article/whats_on_your_plate/3561/) and [http://wkrg.com/news/article/is\\_it\\_really\\_grouper/3557/](http://wkrg.com/news/article/is_it_really_grouper/3557/).

Food Services—West Coast Florida, Inc., requiring the distributor to refrain from marketing to its restaurant clients any items described as grouper without taking commercially reasonable steps to determine that the item is genuine.<sup>14</sup> This legal action was initiated after a similar media investigative report in Tampa, FL, discovered that 17 of 24 area restaurants appeared to be selling less expensive species as grouper.<sup>15</sup> Media investigations have not been limited to the Gulf area.<sup>16</sup> Because the laboratories that tested fish samples for media inquiries all used DNA sequencing methods and made fish species identifications based on DNA sequences in public databases, there is debate within the seafood scientific laboratory testing community about the accuracy of these media reports. A more recent study of New York City restaurants and markets used DNA barcode technology<sup>17</sup> to determine that 14 of 56 samples collected were incorrectly labeled as higher-priced fish.<sup>18</sup>

## **Common Names of Fish**

The correct use of names is crucial for properly identifying seafood. Because one species may have different vernacular names in different regions and because different species may be called by the same vernacular name, standard market names for seafood products are needed to avoid confusion. Common names of fish species have been standardized, often by professional societies.<sup>19</sup> FDA and the National Marine Fisheries Service (NMFS) have cooperated to develop “The Seafood List,” compiling existing acceptable market names for imported and domestically available seafood.<sup>20</sup> In 1988, FDA published the FDA Guide to Acceptable Market Names for Food Fish Sold in Interstate Commerce (“The Fish List”) to provide an authoritative source of common names to establish order in the marketplace and reduce confusion among consumers. In 1993, FDA published an updated, expanded “Seafood List,” which includes invertebrate species (mollusks and crustaceans) as well as finfish. The frequently updated Seafood List reflects what FDA considers the most appropriate market names for the identification and labeling of seafood and is the agency’s primary guidance for naming seafood sold in interstate commerce.

Two main provisions cover the naming of fish—Section 403 of the Federal Food, Drug, and Cosmetic Act of 1938 (FFDCA), which addresses misbranded food, and 21 C.F.R. § 102.5, which sets forth general principles for common or usual names for non-standardized food. A common or usual name is the “prevalent and meaningful name by which consumers ordinarily identify the food.”<sup>21</sup> Use of either the acceptable market name or the common name in labeling seafood

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<sup>14</sup> See <http://myfloridalegal.com/newsrel.nsf/newsreleases/C67E4A15E6C1A3EA852574B9004CF240>.

<sup>15</sup> See <http://pqasb.pqarchiver.com/sptimes/access/1230334761.html?dids=1230334761:1230334761&FMT=FT&FMTS=ABS:FT&date=Mar+10%2C+2007&author=CURTIS+KRUEGER&pub=St.+Petersburg+Times&edition=&startpage=1.A&desc=%27Grouper%27+costs+restaurants>.

<sup>16</sup> Others have been reported in Portland, OR, <http://www.kptv.com/print/11072970/detail.html>; and in Phoenix, AZ, <http://www.kpho.com/print/10371007/detail.html>, for example.

<sup>17</sup> DNA barcoding is a relatively new technique that uses a short DNA sequence from a standardized and agreed-upon position in the genome as a molecular diagnostic for species-level identification. For additional information, see <http://www.barcoding.si.edu/>.

<sup>18</sup> John Schwartz, “Fish Tale Has DNA Hook: Students Find Bad Labels,” *The New York Times*, August 22, 2008. Available at <http://www.nytimes.com/2008/08/22/science/22fish.html>.

<sup>19</sup> For example, see American Fisheries Society, *Common and Scientific Names of Fishes from the United States, Canada, and Mexico*, Special Publication 29, 6<sup>th</sup> edition (Bethesda, MD: July 2004), 386 p.; and American Fisheries Society, *World Fishes Important to North Americans*, Special Publication 21 (Bethesda, MD: 1991), 243 p.

<sup>20</sup> See <http://www.cfsan.fda.gov/~frf/seaintro.html>.

<sup>21</sup> 63 *Fed. Reg.* 20,148 (April 23, 1998).

products assures that identity labeling of the seafood will comply with FDA and National Marine Fisheries Service regulations. FDA discourages the use of vernacular names as this practice may cause seafood to be misbranded.<sup>22</sup>

An example of this concern arose several years ago when increasing imports of basa (*Pangasius bocourti*) from Vietnam were marketed in the United States as “catfish,” causing confusion with domestically produced *Ictalurid* catfish. FDA guidance formerly listed a number of fish other than those from the family *Ictaluridae* with the term “catfish” in their names. This prior guidance reflected what FDA believed were names for seafood that could be used by importers and domestic distributors and sellers consistent with the food naming provisions of the FFDCFA. To address this confusion, § 10806 of P.L. 107-171 (Farm Security and Rural Investment Act of 2002) amended § 403 (the food misbranding provision) of the FFDCFA (21 U.S.C. § 343) to provide that a food shall be deemed to be misbranded “[i]f it purports to be or is represented as catfish, unless it is fish classified within the family *Ictaluridae*.” Although additional concern relates to the use of “lobster” in describing items generally identified as “langostinos,”<sup>23</sup> the extent of this problem is unknown.

### **Country-of-Origin Labeling**

Mislabeling of the country of origin is another concern. Without labeling, consumers would rarely be able to distinguish a product’s country of origin; labeling fish falsely as to country of origin removes the cachet from more desirable products, driving down the more desirable products’ market price. Importers may falsely claim their seafood product is from a country where seafood products may be recognized as of higher quality than the actual source country. Particularly for seafood, some difficult questions relate to the meaning of the term “country of origin.” For example, is product origin best represented by where the seafood was caught, the flag of the harvesting vessel, where the harvest was first landed, where the product was first processed, or where it was last or secondarily processed? Following the terrorist attacks on the World Trade Center on September 11, 2001, interest in traceability in the food supply chain increased substantially, including recognition of the advantages of a complete traceability program for seafood from producer to customer so that the source of and liability for any mislabeling can be more easily identified.<sup>24</sup>

In October 2004, the Agricultural Marketing Service (AMS), U.S. Department of Agriculture (USDA), promulgated an interim final rule requiring certain retailers and their suppliers to notify customers of the country of origin of wild and farm-raised fish and shellfish.<sup>25</sup> Final rules to implement fully the country-of-origin requirements were published by AMS on January 15, 2009.<sup>26</sup> USDA has entered into agreements with states having existing enforcement infrastructure to assist in compliance reviews for fish and shellfish. Only USDA is able to initiate enforcement actions against a person found to be in violation of the law, as this statute does not provide for a private right of action. NOAA is reportedly conducting a criminal investigation of alleged

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<sup>22</sup> Updated information on FDA concerns related to species substitutions and misbranding can be found at [http://www.fda.gov/ora/riars/ora\\_import\\_ia1604.html](http://www.fda.gov/ora/riars/ora_import_ia1604.html).

<sup>23</sup> See <http://www.lawfuel.com/show-release.asp?ID=3593>.

<sup>24</sup> Ami Petersen and David Green, *Seafood Traceability: A Practical Guide for the U.S. Industry*, North Carolina Sea Grant, Report UNC-SG-06-04, 28 p.; available at [http://www.ncseagrant.org/files/seafood\\_traceability.pdf](http://www.ncseagrant.org/files/seafood_traceability.pdf).

<sup>25</sup> 7 C.F.R. Part 60; See 69 *Fed. Reg.* 59708-59750 (October 5, 2004).

<sup>26</sup> 74 *Fed. Reg.* 2658-2707.



repacking and relabeling of imported farmed and wild shrimp as domestic U.S. product.<sup>27</sup> In April 2009, a Washington State man was fined \$160,000 and sentenced to 30 days in jail for mislabeling 136,000 pounds of turbot from China as U.S. halibut.<sup>28</sup> For more information on country-of-origin labeling, see CRS Report RS22955, *Country-of-Origin Labeling for Foods*, by Remy Jurenas.

## **Low Weights or Undercounting**

Inaccurate (low) counts or net weights (“short weighting”) result in consumers receiving less for their money than advertised and anticipated.<sup>29</sup> These instances, although commonly reported, also constitute mislabeling offenses under the FFDC. The seafood community recognizes this problem to be of much greater concern than species substitution, costing legitimate businesses sales and reduced confidence in their true-packaged products. As part of its economic integrity initiative (see “Industry Initiatives,” below), the National Fisheries Institute reported that, in the year preceding August 2008, it sent more than 80 letters to FDA documenting specific company examples of fraudulent weights.<sup>30</sup>

## **Over-Treating or Added Water Weight**

The FDA standard for breaded shrimp requires that such a product contain at least 50% shrimp. Overbreading may cause consumers to pay shrimp prices for excess bread crumbs. Frozen fillets, shrimp, crab legs, and other products are normally protected from dehydration (freezer burn) while frozen by the application of a light glaze of ice, and the water weight of this glaze is not included in the stated product weight. Excessive amounts of glaze (overglazing), not compensated for in this manner, can deliberately be used to increase the apparent weight, and therefore the apparent value, of the delivered product. On February 20, 2009, FDA reissued its 1991 guidance, warning the seafood industry that short weight on a product obtained by including glaze in stated weights is a felony.<sup>31</sup> A multistate investigation in early 2010 found this problem to be widespread.<sup>32</sup>

Sodium tripolyphosphate (STPP) is used in the seafood industry to retain moisture in the product so as to prevent freezer burn and, when properly used, can be a legitimate means for aiding processing. However, STPP can be misused to retain excess moisture in seafood products. Prolonged soaking of seafood in an STPP-water solution can result, for example, in Atlantic sea scallops or shrimp with excessive water. Such excess water adds to the product’s total weight, resulting in misrepresentation when seafood prices are charged for water and, in the case of shrimp, the product is bumped into a larger weight class where a higher price per pound can be charged. Seafood treated with STPP or other water-retaining chemicals must be accurately labeled

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<sup>27</sup> See <http://www.nola.com/news/?/base/news-2/1246253416178870.xml&coll=1>.

<sup>28</sup> See [http://www.noaa.gov/stories/2009/20090511\\_seafood.html](http://www.noaa.gov/stories/2009/20090511_seafood.html).

<sup>29</sup> For more background on this practice, see James Wright, “The Weighting Game: The Seafood Industry Addresses Short-Weighting with Little Assistance,” *Seafood Business*, July 2009, available at <http://www.seafoodbusiness.com/articleDetail.aspx?id=4294994041>.

<sup>30</sup> John Sackton, *Seafood.Com News*, August 12, 2008.

<sup>31</sup> See <http://www.cfsan.fda.gov/~dms/seaglgui.html>.

<sup>32</sup> For additional background on this investigation, see [http://www.ncwm.net/sites/default/files/about/press/2010/2010\\_03\\_29\\_Seafood\\_Investigation.doc](http://www.ncwm.net/sites/default/files/about/press/2010/2010_03_29_Seafood_Investigation.doc).

to identify this treatment. However, FDA has found it difficult to set percent-moisture guidelines and labeling requirements for treated scallops,<sup>33</sup> and no moisture guidelines or standards exist for shrimp. Some critics suggest that the use of all water retention chemicals (primarily phosphates) should be prohibited in fish and shellfish.

## **Altered Color**

Fish fillets can be treated with carbon monoxide (CO) to give fish flesh a fresher-appearing reddish tint.<sup>34</sup> The growing use of CO (also referred to as “tasteless smoke” or TS) as a “pigment fixative” has alarmed some consumer advocates who say it deceives shoppers who depend on color to help them avoid spoiled fish. Seafood industry representatives assert that TS/CO is a legitimate preservative, and the FDA has said it has no questions regarding an industry determination that TS/CO is a substance generally recognized as safe.<sup>35</sup> An additional consumer safety issue occurs when the flesh of certain species such as tuna develops toxic levels of histamine through time and/or temperature abuse—with CO treatment there are no visual cues to indicate when such flesh may be decomposed and toxic. Consumer advocates have urged FDA to conduct a formal evaluation of this treatment’s impact on consumer safety. FDA considers tuna to be misbranded if it is treated with TS/CO but not labeled to indicate that it contains a preservative and thus purports to be unprocessed, fresh, or fresh-frozen tuna.<sup>36</sup> Thus, all processed seafood items involving TS/CO require label declarations under 21 C.F.R. Part 101.22(j).<sup>37</sup> In the 111<sup>th</sup> Congress, provisions were introduced in H.R. 759 and H.R. 2749 that would amend the FFDCA to restrict the use of CO in meat, poultry, and seafood. However, on July 29, 2009, the House Committee on Energy and Commerce reported H.R. 2749, amended to remove the provision that would have restricted the use of CO.

Some aquaculture operations use the color additives canthaxanthin and/or astaxanthin in feed to impart a more orange color to fish flesh of salmon and/or trout.<sup>38</sup> The flesh of the farmed varieties of these fish would, if not for these color additives, be a less-appealing paler color. Under specified conditions, use of these additives in feed for salmonid fish is legal as long as fish are properly labeled to identify that this treatment has been used.<sup>39</sup> Farmed salmon and trout, where additives have been used to enhance color, are susceptible to being improperly labeled and this product deceptively and fraudulently marketed as “wild” fish.<sup>40</sup>

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<sup>33</sup> See <http://www.fda.gov/bbs/topics/ANSWERS/ANS00422.html>.

<sup>34</sup> See [http://www.sushiman.net/ahi/carbon\\_monoxide\\_trea.htm](http://www.sushiman.net/ahi/carbon_monoxide_trea.htm).

<sup>35</sup> See CRS Report RL34247, *Federal Regulation of Substances Generally Recognized As Safe (GRAS) and the Use of Carbon Monoxide in Packaging for Meat and Fish*, by Vanessa K. Burrows and Cynthia Brougher.

<sup>36</sup> See FDA Import Bulletin #16B-95, available at <http://seafood.ucdavis.edu/Guidelines/fdbulletin16b.htm>.

<sup>37</sup> See <http://www.cfsan.fda.gov/~rdb/opa-g015.html>.

<sup>38</sup> Fereidoon Shahidi, Metusalach, and Joseph A. Brown, “Carotenoid Pigments in Seafoods and Aquaculture,” *Critical Reviews in Food Science and Nutrition*, v. 28, no. 1 (1998): 1-67.

<sup>39</sup> 21 C.F.R. § 73.35; 21 C.F.R. § 73.75.

<sup>40</sup> A 2005-2006 study found that only 10 of 23 salmon fillets marketed as “wild” salmon were definitely caught in the wild, while the majority were from farmed salmon. See “Mislabelled Salmon: The Salmon Scam,” *Consumer Reports*, v. 71, no. 8 (August 2006): 15.

## Transshipment to Avoid Import or Customs Duties

Transshipment occurs when foreign producers ship goods to a second country en route to the United States. Although transshipment is generally legal and commonly used in the ordinary course of business, it is illegal if it is done for the purpose of circumventing duties and other applicable trade restrictions. It has been reported that shrimp from China have been shipped to the United States by way of Indonesia to avoid paying antidumping duties of 112% levied by the United States on shrimp imported from China, but not on shrimp imported from Indonesia.<sup>41</sup>

## Industry Initiatives

In 1986, the Southeastern Fisheries Association, funded under the Saltonstall-Kennedy Act grant program,<sup>42</sup> introduced a Seafood Product Quality Code program in one of the first efforts by a fisheries trade association to better inform wholesale and retail seafood buyers.<sup>43</sup> The code, an educational and promotional concept, catalogs the industry's recommended measures for product quality for individual species to better inform buyers and to encourage more industry quality compliance by facilitating communications between buyers and sellers. Compliance with the code is a voluntary means whereby seafood sellers can indicate that they provide consumers a very safe, high-quality product.

In October 2006, concerns that seafood fraud had begun to and could increasingly erode consumer confidence in seafood led the National Fisheries Institute (NFI) to announce an initiative to promote economic integrity within the seafood industry. Implementation of this initiative commenced in summer 2007, concentrating on three primary areas:

- transshipment of products subject to antidumping and countervailing duties;
- mislabeling of products or species substitution; and
- mislabeling of weights or counts of products.

NFI officially launched its Better Seafood Bureau on July 5, 2007.<sup>44</sup> NFI is pursuing their initiative by (1) obtaining commitments from the CEOs of NFI member companies to comply with current law and regulation, and (2) developing an accountability system that would reward "good actors" and identify "bad actors." Such an accountability system involves screening by the Better Seafood Bureau, independent third-party audits of processes and products, and a member review process. The name was officially changed to the Better Seafood Board in May 2009 to avoid confusion with the Better Business Bureau.

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<sup>41</sup> See [http://www.atimes.com/atimes/Southeast\\_Asia/HC22Ae01.html](http://www.atimes.com/atimes/Southeast_Asia/HC22Ae01.html) and <http://au.sys-con.com/node/890860/print>. Further information is contained in out-of-print CRS Report RS21776, *Shrimp Trade Dispute: Chronology*, by Eugene H. Buck, available from the author.

<sup>42</sup> For further information, see CRS Report RS21799, *Saltonstall-Kennedy Fishery Funding*, by Eugene H. Buck.

<sup>43</sup> See <http://www.southeasternfish.org/SPQC/product%20quality%20code.pdf>.

<sup>44</sup> For more information, see <http://www.aboutseafood.com/about/about-nfi/better-seafood-bureau>, and [http://www.aboutseafood.com/sites/www.aboutseafood.com/files/share/BSB\\_Backgrounder\\_General\\_May\\_2009\\_NRA.pdf](http://www.aboutseafood.com/sites/www.aboutseafood.com/files/share/BSB_Backgrounder_General_May_2009_NRA.pdf).

## Current Law and Congressional Interest

With the increasing media attention to this issue, Congress may face questions concerning current law applicable to seafood marketing and fraud. The issues to consider may include whether:

- current law applicable to fraudulent seafood sales and marketing is clear and enforceable;
- federal agency enforcement efforts targeting seafood fraud are adequate;
- the penalties for seafood fraud offenses are a deterrent; and
- the resources for federal agency enforcement are sufficient.

FDA is the primary agency responsible for ensuring that food sold in interstate commerce is properly labeled. The agency's jurisdiction includes seafood and the agency operates an oversight compliance program, the Seafood Regulatory Program, for fishery products. Responsibility for a food product's safety, wholesomeness, identity, and economic integrity rests with the processor or importer, who must comply with regulations promulgated under the FFDCA and the FPLA. The agency has the authority to detain or temporarily hold food being imported into the United States while it determines if the product is misbranded or adulterated. The agency also has the authority to take legal action against sellers of adulterated and misbranded seafood and to recommend criminal prosecution or injunction of responsible firms and individuals. However, enforcement of economic fraud and labeling laws may be a lower FDA priority relative to protecting the health and safety of the U.S. food supply.<sup>45</sup>

The adequacy of agency funding is also an issue, especially whether the agency has adequate resources so that it can more systematically monitor for economic fraud and mislabeling, better determine the scope and scale of these types of problems, and develop new programs that address these concerns. About 85 of the agency's roughly 1,350 inspectors work primarily with seafood. The adequacy of agency funding is regularly raised as a concern when agency appropriations are considered. For example, in testimony before the Senate Committee on Appropriations, one industry representative stated:

We believe the most important issue on the table today is whether FDA is adequately funded, has sufficient staff with scientific training and experience ... , has research dollars available to address key questions, has strong working agreements with the States to support as needed and has the commitment of the President and the Congress.<sup>46</sup>

## Federal Food, Drug, and Cosmetic Act

The FFDCA attempts to keep interstate commerce free from misbranded (i.e., mislabeled) articles and to protect the public from inferior foods resembling standard products but marketed under distinctive names.<sup>47</sup> The governing statute for naming food is the FFDCA. The FFDCA, as amended, gives FDA authority over most food regulation and includes:

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<sup>45</sup> "Species Substitution: Labeling Law Not An FDA Priority ... ," *Santa Monica Seafood SeaLog* (April 2006).

<sup>46</sup> Testimony by Thomas E. Stenzel, President and CEO of the United Fresh Produce Association, before the Senate Committee on Appropriations, March 12, 2007, in a special hearing on "Food Safety."

<sup>47</sup> 35A Am. Jur. 2d Food § 25 (2006).

- a series of definitions elaborating on the concepts of adulteration and misbranding;
- control over all labeling of foods traveling in interstate commerce;
- detailed regulation of issues concerned with safety and wholesomeness of foods; and
- enforcement remedies available to the agency, when needed.<sup>48</sup>

An article is deemed misbranded if, among other things, its labeling is false or misleading or it is offered for sale under the name of another food.<sup>49</sup> An article is considered mislabeled when the label makes “no representation as to definition and standard of quality,” unless the label bears the common or usual name of the food, if there is one.<sup>50</sup>

FDA has issued regulations that outline general principles for common or usual names of food. The common or usual name must:

accurately identify or describe, in as simple and direct terms as possible, the basic nature of the food or its characterizing properties or ingredients. The name shall be uniform among all identical or similar products and may not be confusingly similar to the name of any other food that is not reasonably encompassed within the same name. Each class or subclass of food shall be given its own common or usual name that states, in clear terms, what it is in a way that distinguishes it from different foods.<sup>51</sup>

A common or usual name of a food may be established by common usage or by regulation.<sup>52</sup> For example, FDA promulgated a regulation establishing that Pacific whiting or North Pacific whiting is the common or usual name of the food fish *Merluccius productus*.<sup>53</sup> Most common or usual names, however, are established through common usage.

Although the agency’s Seafood List includes “vernacular” names for some species, use of vernacular names is discouraged by the agency. The use of a vernacular name may cause a seafood to be misbranded under the FFDCA.<sup>54</sup> For example, the agency has issued specific guidance on using “red snapper” as a market name. The agency’s policy states that “the labeling or sale of any fish other than *Lutjanus campechanus* as red snapper constitutes a misbranding in violation of the [FFDCA].”<sup>55</sup>

Under the FFDCA, species substitution also violates FDA’s prohibition against adulteration. A food is deemed adulterated “if any substance has been substituted wholly or in part.”<sup>56</sup> The

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<sup>48</sup> For more information, see CRS Report RL33559, *Food Safety: National Uniformity for Food Act*, by Donna V. Porter.

<sup>49</sup> 21 U.S.C. § 343. FDA further regulates this area of “Misbranding” in 21 C.F.R. § 101.18.

<sup>50</sup> 21 U.S.C. § 343(i)(1).

<sup>51</sup> 21 C.F.R. § 102.5(a).

<sup>52</sup> 21 C.F.R. § 102.5(d).

<sup>53</sup> 21 C.F.R. § 102.46.

<sup>54</sup> Sec. 540.750 Common or Usual Names for Seafood in Interstate Commerce (CPG 7108.26).

<sup>55</sup> Sec. 540.475 Snapper—Labeling (CPG 7108.21).

<sup>56</sup> 21 U.S.C. § 342 (b)(2).

marketing of a less valuable fish as one of higher value is a substitution and can result in a finding of adulteration.

## **Fair Packaging and Labeling Act**

The FPLA requires that consumers of packaged commodities be provided with accurate information as to its contents. Congress passed the FPLA to “enable consumers to obtain accurate information as to the quantity of the contents and to facilitate value comparisons.”<sup>57</sup> Under the FPLA, it is unlawful for persons engaged in labeling or packaging of consumer commodities “to distribute or to cause to be distributed in commerce any such commodity if such commodity is contained in a package, or if there is affixed to that commodity a label, which does not conform to the provisions” of the act.<sup>58</sup>

The FPLA requires each label to identify the commodity and the name of its manufacturer, packer, or distributor and the net quantity of contents, in terms of weight or mass, measure, or numerical count.<sup>59</sup> Food products falling within the scope of the FFDCA that are introduced into interstate commerce in violation of the FPLA and its regulations are deemed to be misbranded within the meaning of the FFDCA.<sup>60</sup>

## **State Regulation of Seafood Labeling**

In addition to federal requirements, some states also regulate the labeling and branding of seafood under state versions of the FFDCA. For example, in Alaska “no person may label or offer for sale any food fish product designated as halibut, with or without additional descriptive words, unless the food fish product is *Hippoglossus* or *Hippoglossus stenolepis*.”<sup>61</sup> In California, an individual who sells any commodity in less quantity than what is represented is guilty of a misdemeanor offense.<sup>62</sup>

## **Customs and Border Protection**

Transshipment to avoid paying import or customs duties is illegal whenever it circumvents trade laws and other applicable trade restrictions.<sup>63</sup> The applicable law and regulation may vary, depending upon the trade agreement existing between the United States and another nation as well as the status of any antidumping and countervailing duties currently in force for particular products imported from designated nations.

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<sup>57</sup> 15 U.S.C. § 1451.

<sup>58</sup> 15 U.S.C. § 1452.

<sup>59</sup> 15 U.S.C. § 1453(a).

<sup>60</sup> 15 U.S.C. § 1456(a).

<sup>61</sup> Alaska Stat. § 17.20.045.

<sup>62</sup> Cal Bus & Prof Code § 12024.

<sup>63</sup> Section 592 of the Tariff Act of 1930 (19 U.S.C. § 1592).

## Conclusions

Both consumers and some producers could incur economic losses in cases of fraud or deception, with short-term gains to those who sell mislabeled merchandise. Although it is not clear whether the amount of fraud and deception in seafood sales and marketing is increasing, media attention to this issue has raised its profile with the public. The economic integrity initiative of the National Fisheries Institute has the potential to increase attention within the seafood industry to this issue as well as to address eroding consumer confidence in fair marketing of seafood produce. In addition, third-party certification bodies—for example, the Marine Stewardship Council,<sup>64</sup> Naturland,<sup>65</sup> and the Aquaculture Certification Council<sup>66</sup>—have the potential to address fraud and deception concerns where certification requires producers to adhere to specific protocols and standards for catching/raising and processing product. However, the potential for these groups to self-enforce their standards has not been demonstrated.

In response to increased public concern, Congress is facing questions concerning current law applicable to seafood marketing and fraud. These questions include whether current law applicable to fraudulent seafood sales and marketing is clear and enforceable, whether federal agency enforcement efforts targeting seafood fraud are adequate, and whether the penalties for seafood fraud offenses are a deterrent. In addition, adequate funding may be an issue so that agencies can more systematically monitor the situation, better determine the scope and scale of this type of problem, and develop new programs that address this fraud.

GAO released a report on seafood fraud in February 2009, which may provide impetus for additional attention to FDA's role in addressing this issue.<sup>67</sup> GAO concluded that federal agencies have not taken advantage of opportunities to share information that could benefit individual agency efforts to detect and prevent seafood fraud, and have not identified similar and sometimes overlapping activities that could be better coordinated to use limited resources more efficiently.

For additional background on broader legislative efforts to address seafood marketing and safety concerns, see the “Marketing” and “Seafood Safety and Nutrition” sections of CRS Report R40172, *Fishery, Aquaculture, and Marine Mammal Issues in the 111<sup>th</sup> Congress*, by Eugene H. Buck and Harold F. Upton.

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<sup>64</sup> See <http://www.msc.org/about-us>.

<sup>65</sup> See [http://www.naturland.de/certification\\_aquaculture.html](http://www.naturland.de/certification_aquaculture.html).

<sup>66</sup> See <http://www.aquaculturecertification.org/>.

<sup>67</sup> U.S. Government Accountability Office, *Seafood Fraud: FDA Program Changes and Better Collaboration among Key Federal Agencies Could Improve Detection and Prevention*, February 2009, GAO-09-258, 49 p.