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STATUS AND TRENDS OF THE WORLD MARKET OF CAVIAR

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СТАН І ТЕНДЕНЦІЇ РОЗВИТКУ СВІТОВОГО
РИНКУ ОСЕТРОВОЇ ІКРИ

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СОСТОЯНИЕ И ТЕНДЕНЦИИ РАЗВИТИЯ МИРОВОГО
РЫНКА ОСЕТРОВОЙ ИКРЫ

The analysis of the development of the world market of sturgeon caviar. As the main trends of development determined the diversification of the production of sturgeon and caviar from fishing in the wild production of this product only in aquaculture conditions. Uncontrolled poaching of sturgeon and production of sturgeon caviar led to almost complete destruction of the population at the end of the last century. The great demand for caviar as a gourmet and nutritious food, has led to the inflow of investments to the development of aquaculture – the artificial rearing of sturgeon. Among the countries with the largest volume of aquaculture production of sturgeon caviar are China, Russia, Italy, Germany, Poland and the United States. 90% of the domestic market of sturgeon caviar in Ukraine is contrabandism and counterfeit. Absent purposeful activity of the state to stimulate the development of aquaculture production and protection of sturgeon.

Key words: production; trade; market; caviar; aquaculture.

Fig.: 4. Bibl.: 20.

Проведено аналіз розвитку світового ринку ікри осетрових риб. Як основну тенденцію розвитку визначено диверсифікацію видобутку осетрових риб та ікри від вилову в дикій природі до виробництва цього продукту тільки в умовах аквакультури. Неконтрольований вилов осетрових та браконьєрський видобуток ікри осетрових призвели до майже повного винищення популяції наприкінці минулого століття. Великий попит на ікру, як делікатесний та поживний продукт, обумовив приплив інвестиційних ресурсів у розвиток аквакультури – штучного виховування осетрових. До числа країн, що мають найбільший обсяг аквакультурного виробництва ікри осетрових, належать Китай, Росія, Італія, Німеччина, Польща та США. 90 % внутрішнього ринку осетрової ікри в Україні є контрабандним та контрафактним. Відсутня цілеспрямована діяльність держави зі стимулювання розвитку аквакультурного виробництва та захисту популяції осетрових.

Ключові слова: виробництво; торгівля; ринок; ікра осетрових; аквакультура.

Рис.: 4. Бібл.: 20.

Проведен анализ развития мирового рынка икры осетровых рыб. В качестве основной тенденции развития определено диверсификацию добычи осетровых рыб и икры от вылова в дикой природе к производству данного продукта только в условиях аквакультуры. Неконтролируемый вылов осетровых и браконьерская добыча икры осетровых привели к почти полному истреблению популяции в конце прошлого века. Большой спрос на икру, как деликатесный и питательный продукт, обусловил приток инвестиционных ресурсов в развитие аквакультуры – искусственного выращивания осетровых. К числу стран, имеющих наибольшие объемы аквакультурного производства икры осетровых, относятся Китай, Россия, Италия, Германия, Польша и США. 90 % внутреннего рынка осетровой икры в Украине является контрабандным и контрафактным. Отсутствует целенаправленная деятельность государства по стимулированию развития аквакультурного производства и защиты популяции осетровых.

Ключевые слова: производство; торговля; рынок; икра осетровых; аквакультура.

Рис.: 4. Библи.: 20.

JEL Classification: F14, L66

Formulation of the problem. Sturgeons are one of the most valuable food resources that people receives from the wild. For its outstanding taste and nutritional value, sturgeon caviar globally recognized as a delicacy. Localization of production of sturgeon caviar in the Caspian Sea, was the result of uncontrolled fishing of sturgeon in countries assigned to “third world” and in Russia. In XX century fishing of sturgeon and caviar production in the Soviet Union and Iran, that were the largest producers, had the character of a super-profitable areas of economic activity. While providing thousands of people work and material resources, the uncontrolled fishing of sturgeon and continuous growth of poaching, led to almost complete destruction of most species of sturgeon.

Analysis of recent research and publications. A significant importance in study of the world market of hydrobionts have scientists such as I.V. Ditrikh, M.V. Hrynzhevskiy, A.I. Hrynzhevskaya, I.Y. Hrytsyniak, T.K. Lebska, E.H. Mykhneva, T.M. Shvets. The works of

scientists devoted to analysis of global markets of seafood, aquaculture production, trends and prospects of further development of this industry.

Singling out of previously unsolved parts of the general problem. Conducted analysis of outlined scientists demonstrates a lack of review of world market of sturgeon caviar.

The aim of the article. The main purpose of this article is determination of the state and trends of the world market of sturgeon caviar.

Laying out of the main research material. Sturgeon fish species are living in big river systems, lakes, coastal waters and inland seas throughout the territory of Azerbaijan, Bulgaria, China, the Islamic Republic of Iran, Kazakhstan, Romania, Russian Federation, Turkmenistan, Turkey, Ukraine and other European countries and Northern America. The peculiarity of their life in the wild is migration for spawning to fresh waters. But such factors as pollutions, hydrogeological changes (building of dams, mining of sand and gravel, development of oil and gas reserves) made it impossible to implement the migration of fish to spawning places. At the same time overfishing, poaching, destruction of existing in Soviet Union times management have reduced the population almost in 40 times [2].

The Soviet Union and Iran were the main suppliers of caviar on the world market. The main centers of fishing of sturgeon fish species - Caspian, Black and Azov Seas. Extraction of sturgeon in the Soviet Union in the Caspian Sea amounted to 28 thousand tons, and the actual production of caviar - about 2,500 tons, that represented 90 % of world market [3]. The main share of the obtained product was exported. Significant quantities of production of caviar are stellate sturgeon, Russian sturgeon and beluga (Fig. 1).

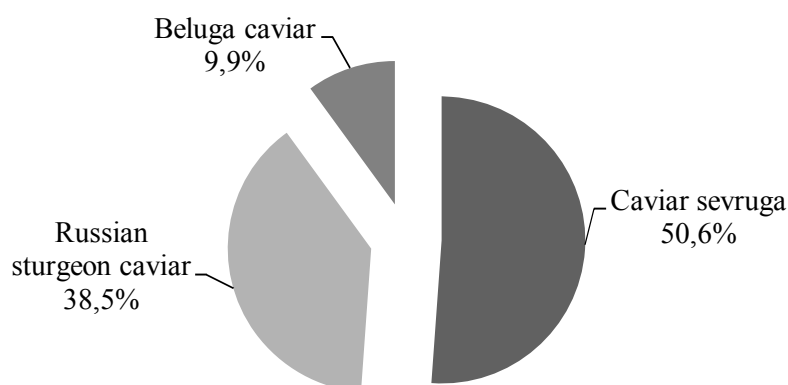


Fig. 1. The production volumes of caviar sturgeon species in the Caspian Sea

Source: [4].

In addition to receiving of caviar from the main commercial species of sturgeon in the early 90s of the last century in Europe and the United States had launched production of caviar from shovel-nosed sturgeon, paddlefish and bowfin. The quality of caviar did not differ from Caspian and Far Eastern analogs but its cost is much lower due to availability [1].

To ensure the survival of the species and subsequent recovery of the population in 1998 all sturgeon species were listed in the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). The Convention established the size of quotas for sturgeon fishing for commercial purposes. As a result of the convention Caspian countries have significantly reduced the volume of industrial sturgeon, while in France, Germany, Italy, USA, Canada, China, Uruguay, Spain, South Korea, Saudi Arabia and other countries had established more than 136 farms for breeding sturgeon for obtained of the caviar [5].

In the United States was prohibited import and sale of sturgeon caviar obtained in the wild since 2005 due to the significant decrease of world reserves [6].

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The extermination of populations of sturgeon led to the moratorium in 2011 on commercial fishing in the Caspian Sea between the coastal countries - the Republic of Azerbaijan (Azerbaijan), the Islamic Republic of Iran (Iran), Kazakhstan (Kazakhstan), the Russian Federation and Turkmenistan, the effect of which continued in 2015 for two years [7]. Acceptable remained sturgeon fishing only in research and reproductive purposes. But such "cover" made it possible to legalize criminal extraction of caviar, that led to total ban of fishing sturgeon.

In terms of 2014 legalization of caviar on the world market was approximately 350-370 tons per year, while its capacity is was estimated at 1,000-1,200 tons per year. Amount of contraband parties ranging from a few hundred grams to hundreds of kilograms. For some countries such as Russia and Iran, poaching is a whole industry of the shadow economy [4; 8]. In Iran it is punished very severely, until the cutting off of hands. But if poacher fished sturgeon and handed over it for the money to the state enterprise, then criminal responsibility for the committed action does not occur [9].

To the world market only from poachers from Russia annually supplied caviar for 400-450 mln. USD that is about 400-500 tons of caviar and is almost 40 % of smuggled fishing (Fig. 2).

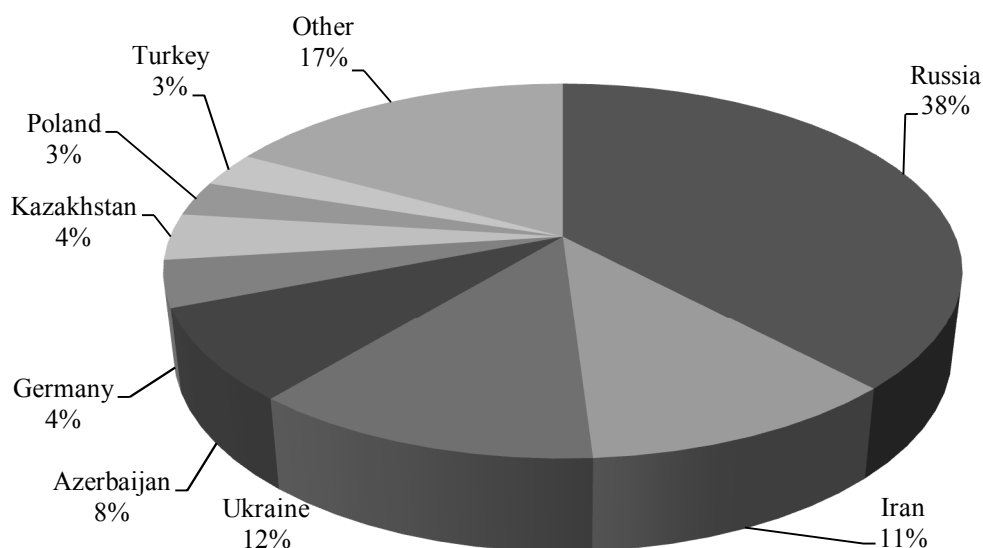


Fig. 2. The volume of illegal trade in sturgeon caviar

Source: [10; 4].

In recent years, the amount of the parties of contraband from the Caspian Sea tends to decrease, part of caviar replaced by deliveries from the Far East. It has characteristic differences in color and size of caviar. However, companies that worked with smuggling increasingly turning into legal business, that makes this area of economic activity more civilized [4].

Breeding of sturgeon in aquaculture farms is a very promising and profitable business, but it requires a large financial investments (startup is approximately 1 million USD), highly qualified staff and long time to growing adult specimens. A significant increase of the production of sturgeon in conditions of aquaculture observed since late last century and has an annual upward trend (Fig. 3) [1].

Chinese caviar obtained in the conditions of aquaculture began to arrive on the world market in the early 2000s. In China there are 12 fish farms in Jingjiang, Shandong, Heilongjiang and other cities. Currently, 10 % of the market belongs to China. The exact data on production volumes not yet, but according to experts opinion it is about 65 tons (Fig. 4) [9; 11].

In view of the prohibition of commercial fishing of sturgeon in the Caspian Sea, Russia also produced caviar in aquaculture conditions. In recent years, in this country tends to increase. In 2014 sturgeon caviar production volume amounted to 30.5 tons [13]. Over the past two years the production of caviar in Russia increased by 44 % and is 44 tons per year. By 2030 projected production increase by 1.5–2 times without changing the price of the product [12].

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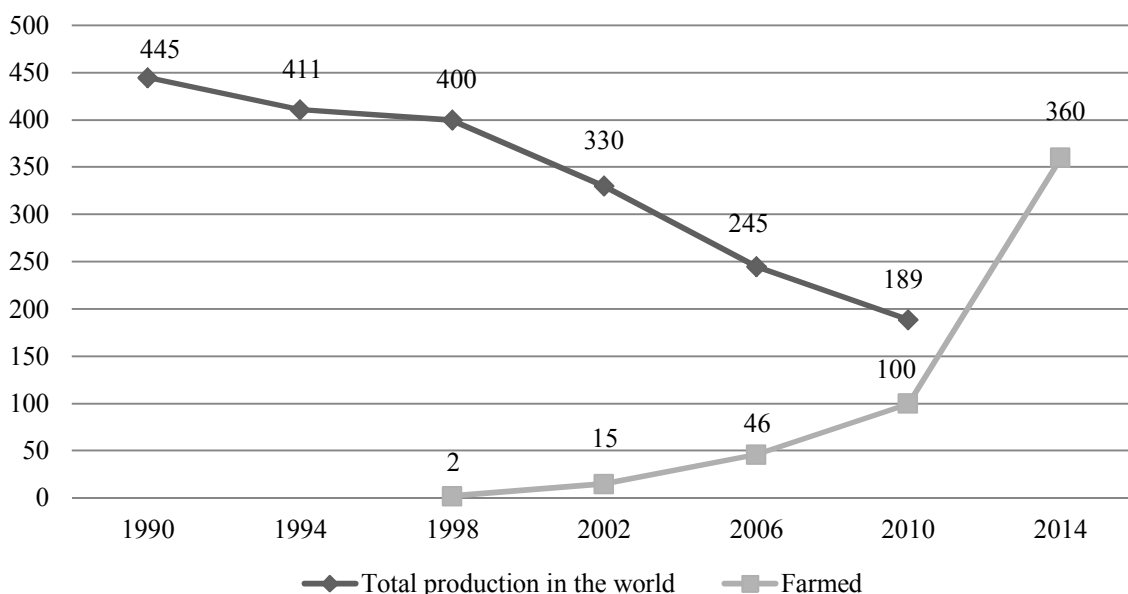


Fig. 3. World production of caviar in the conditions of aquaculture, tons

Source: [8; 4].

In the European Union the largest volume of aquaculture production observed in Italy, France, Poland and Germany.

Enterprise «Caviar Court Food Processing» – producer of Saudi Arabia, which production volumes reaches 6 tons of caviar per year. Products are exported to Russia and CIS countries [11].

Israel began to export caviar to Japan, America, Europe and Russia since 2008. Israeli caviar differs by excellent quality and very high prices – up to 5 thousand USD per kilogram, but Israelis do not consume because of their religious beliefs.

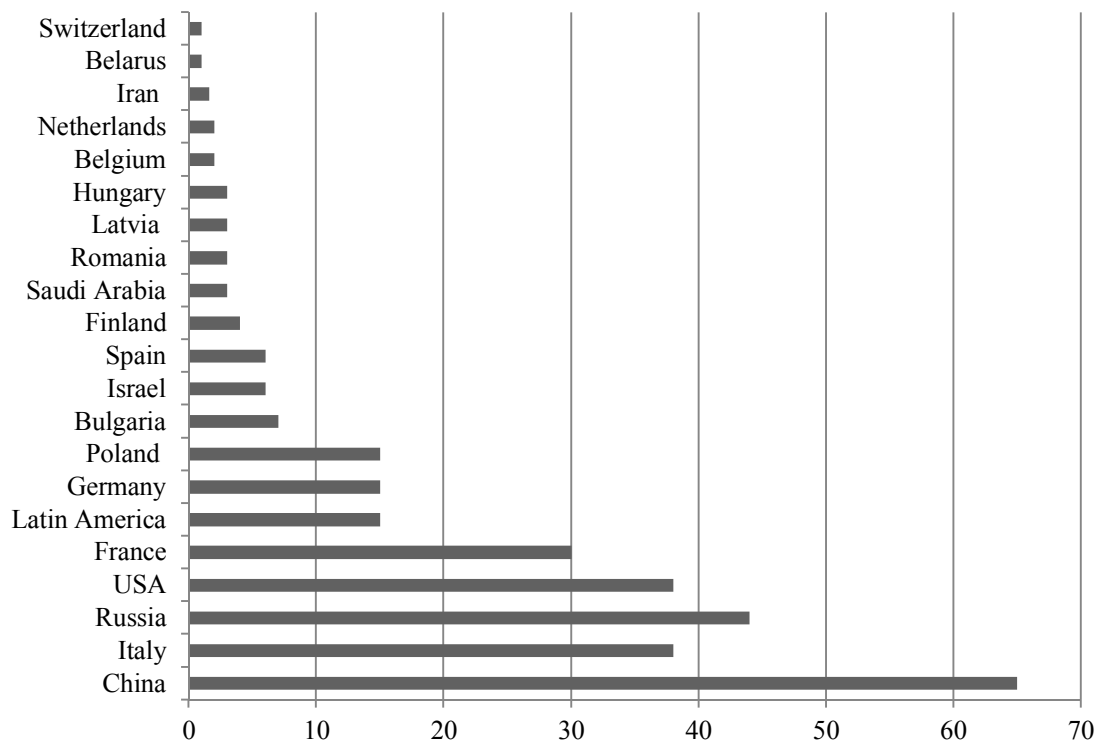


Fig. 4. World production of caviar obtained from aquaculture (tons) in 2016 (major manufacturers)
Source: [9; 12].

Also within the religious prohibition of consumption of sturgeon and sturgeon caviar to the 1970s in Iran fishing of caviar sturgeon never engaged [11]. As part of establishing quotas to the moratorium, only Iran was allowed to export caviar of Persian albino-sturgeon. This species only exists in the wild, and output amounted to 0.5 tons at a cost of not less than 30 thousand USD per kg [14]. In recent years, the Iranian government encourages the development and production of sturgeon caviar, which in 2015-2016 amounted to 1.2 and 1.6 tons respectively. In 2017 projected increase in production volume by 50% and obtain 3 tons and 1,000 tons of sturgeon caviar [15].

Uruguay also joined to the global “boom” in aquaculture production of sturgeon. Significant production growth observed in the 2012-2014 – 5.7 tons respectively, in 2015 produced only 2 tons. In terms of 2016 to 7 tons we can see again tends to increase. By 2019 the country's leadership planned to increase the volume to 11 tons [16].

At the end of 2016 in the Kazakh city Uralsk launched aquaculture complex for producing sturgeon. It is expected that annual aquaculture complex will produce up to 131 tons of sturgeon meat and 10 tons of caviar [17].

According to the National Statistics Committee of Belarus in 2016 compared to 2015, the country exported at 247.8 %, ie 721 kg of caviar worth about 285 thousand USD. Caviar importers of Belarus are Russia, Kazakhstan, New Zealand, Jordan, Moldova and Ukraine. In Belarus there are no own large aquaculture production of sturgeon. Almost all the raw materials for the production of caviar for the domestic market and for export comes from outside. In 2015 imports of caviar sturgeon in Belarus amounted to 60 kg, and the main supplier in amount of 44 kg was Russia. In 2016 Russia became virtually the only source of imported caviar. By it deliveries to the Belarusian market increased by 50 times - up to 2996 kg. According to Russian experts and traders, Belarusians bought not Russian caviar, but cheap Chinese. Belarus sold it to Russia (including like Russian brands) and to other markets. This is confirmed by the Federal Customs Service (FCS), that in 2015 Russia imported from China 743.5 kg black caviar, and in 2016 3.9 tons. Exports to Belarus stacked in this volume [18].

In the beginning of 2017, Japan became the exporter of sturgeon caviar. The first batch of caviar production company Japan Caviar exported to Hong Kong, next plans export to South-East Asia. The volume of production is now up to a ton of caviar per year [19].

Precise data of volume about the market of black caviar in the Ukraine does not have. However, according to various estimates it is about five tons a year, with at least 90 % of caviar are smuggled and often counterfeited. In the case of a legal market sales are represented caviar that produced in the USA, Russia, Europe and Ukraine [1]. Import is low, for 9 months of 2016 its volume remained at the level of 2015 - 0.1 tons, but increased its price up to 22 %. 95 % of caviar that produced in Ukraine consumed on the domestic market and the remaining test batch are exported to Europe [20].

Conclusions. The world market of sturgeon caviar has undergone rapid changes and currently redirected for manufacturing in the conditions of aquaculture. Since the late 90s of the last century marked tendency to a significant increase in production volumes aquaculture. The largest producers of caviar are China, Russia, Italy, Germany, Poland, USA. The actual problem is poaching of sturgeon that is cause of great damage to an already weakened population.

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