

LU Raksti vai žurnāls bioloģijā: iespējamie zaudējumi un ieguvumi

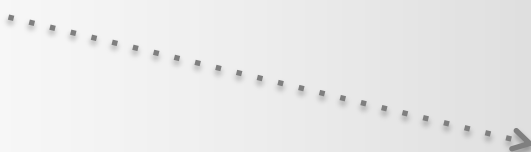
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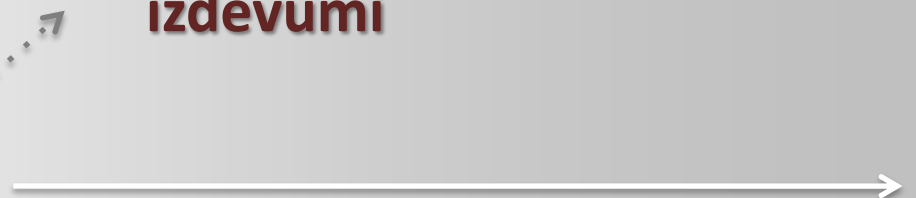
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KOMERCIĀLIE

ZINĀTNISKO APVIENĪBU IZDEVUMI

Philosophical Transactions of the Royal Society (1665)

The Royal Society of London (1660) sekretāra privāta iniciatīva

Philosophical Transactions of the Royal Society B: Biological Sciences (1800)

Proceedings of the Royal Society B (1800)

Zinātniskā recenzēšana (1830)

*Isaac Newton, Charles Darwin, James Clerk Maxwell,
Michael Faraday*

ZINĀTNISKO APVIENĪBU IZDEVUMI

Proceedings of the National Academy of Sciences of the United States of America (1915)

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Acta Horti Botanici Universitatis Latviensis (1926–1940)

Acta Zoologica et Hydrobiologica (1930–1943)

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Ierobežojumi autoru piederībai:

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- tikai no Latvijas;
- bez ierobežojumiem (starptautisks izdevums).

Mūsdienu situācijā (1) un (2) izskatās nenopietni

Citas problēmas

Publikāciju valoda

Nosaukums: starptautiski atpazīstams

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Noteikumi par izdevuma "Latvijas Universitātes Raksti" izdošanu

Pēdējās izmaiņas veiktas:
07.04.2011

Drukāt
Sašaurināt tekstu
Sadalīt tekstu kolonnās

Pielikums
APSTIPRINĀTS
ar LU 20.06.2002.
rīkojumu Nr.1/95

1. Vispārējie nosacījumi


1.1. "Latvijas Universitātes Raksti" (turpmāk tekstā – LU RAKSTI) ir recenzējams sērijveida zinātnisks izdevums ar vienotu ISSN numuru.

1.2. LU RAKSTI publicē akadēmisko sabiedrību interesējošus oriģinālu teorētisko vai lietišķo pētījumu rezultātus, apskata rakstus, problēmrakstus, īsus zinātniskos ziņojumus, kā arī informāciju par akadēmiskās dzīves jaunumiem.

1.3. LU RAKSTU nosaukums:

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1.3.2. latīņu valodā: "Acta Universitatis Latviensis"

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2003–2009

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122 raksti (vid. 17 raksti uz sējumu)

1216 lapaspuses (vid. 10 lpp. uz rakstu)

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HARD COPY: ISSN 1691AC*8088
ON-LINE: ISSN 2255-9582

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FEATURED CONTENT

Baral B., Shrestha B., Teixeira da Silva J.A. 2015. A review of Chinese *Cordyceps* with special reference to Nepal, focusing on conservation. *Environmental and Experimental Biology* 13: 61–73.



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VOL. 11 (2013) ▶ 1 ▶ 2 ▶ 3 ▶ 4
VOL. 10 (2012) ▶ 1 ▶ 2 ▶ 3 ▶ 4
VOL. 9 (2011) ▶ 1-2 ▶ 3-4
VOL. 8 (2010) ▶ 1-4

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▶ 2008
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“Vietējā” komanda

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Environmental and Experimental Biology

Volume 10, Number 2
June 2012

ISSN 1691-8088

Founded in 2003 as Acta Universitatis Latviensis ser. Biology



UNIVERSITY OF LATVIA

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Environmental and Experimental Biology (2015) 13: 61–73

Review

A review of Chinese *Cordyceps* with special reference to Nepal, focusing on conservation

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Abstract

The Chinese caterpillar fungus, *Ophiocordyceps sinensis* (syn. *Cordyceps sinensis*) is an endemic species to alpine sub-meadow habitats of Nepal Himalaya and the Tibetan Plateau. Owing to its crucial and elusive medicinal attributes and known rarity and availability in the high Himalayas, extraction and exploitation of this fungus has caused extreme biotic pressure on the Himalayan alpine meadows of Nepal. Changes in micro-climatic conditions, unprecedented collection intensity and profound economic dependence of rural communities certainly affect stages of the life-cycle of this fungus, which ultimately calls for sustainable resource management. Several studies strongly indicate that this fungus and its as yet unidentified relatives possess high amounts of potentially bioactive chemical compounds, endowing it with medicinal properties. These issues, together with its natural historical attributes, harvesting techniques, and an understanding of the genetic diversity and genesis of *O. sinensis* would provide important clues regarding its evolution as well as needed information for *in situ* and *ex situ* conservation of this fungus. Molecular analyses and the development of microsatellite markers would allow for the authentication of this medicinal fungus, differentiating it from several closely related *Cordyceps* species, thus preventing falsification and discouraging illicit trade and the marketing of available counterfeits. This review highlights the importance of this fungus through studies on its status, diversity, ecological niches, socio-economic, administrative and mycological perspectives, and practices that have been and should be performed for its effective sustainable management in the highly diverse Nepal Himalayas.

Key words: biodiversity conservation, *Cordyceps sinensis*, ecological niche, ecological constraints, endemic entomopathogenic fungi, fungus *cum* larvae, Himalaya, *Ophiocordyceps*, Yarsagumba.

Ecology

Ophiocordyceps sinensis (Berk.) G.H. Sung, J.M. Sung, Hywel-Jones & Spatafora [syn. *Cordyceps sinensis* (Berk.) Sacc.] is colloquially known as caterpillar fungus (Winkler 2005; Winkler 2008) or Chinese caterpillar fungus (Shrestha et al. 2010) in English and Yarsagumba (fungus *cum* larvae) in Nepali (Shrestha et al. 2010; Shrestha 2011). Indigenous people in some parts of Nepal simply call it Bu (fungus *cum* larvae). Besides the name Yarsagumba, it is known in different parts of Nepal such as Bhu-Sanjivani, Jivan Buti, Jingani, Kira Chhyau, Kira Jhar, Saram Buti Jadi and Saram Buti (Shrestha et al. 2010). This fungus infects and eventually kills Lepidopteran larvae of about 60 different species (Chu et al. 2004; Wang, Yao 2011), usually that of the Himalayan bat moth *Hepialus armonicus* (Gao et al. 2003; Holliday et al. 2005; Wang, Yao 2011). *O. sinensis* is rare and endemic to the high Himalayas and Tibetan Plateau and is immune to extreme cold alpine pastures (Kinjo, Zang

2001; Boesi 2003; Winkler 2008), and very thin oxygen (50 to 60% thinner than in oceans). It is an entomophagous fungus (Stone 2008; Zhao et al. 2013) and belongs to the Ophiocordycipitaceae family in the order Hypocreales of the Ascomycota (Sung et al. 2007).

Harboring enormous medicinal properties with promising bioactive compounds that are in high demand (Wasser 2002), *O. sinensis* has and continues to be harvested at an alarming rate (Negi et al. 2006). Since the Himalayan ecosystems are fragile, being surrounded by and interspersed with towering mountain ranges, the prompt conservation measures for wild populations of *O. sinensis* and also an effective, abundant and sustainable supply of this natural resource are required (Yang 1999; Negi et al. 2006). This review highlights the status, diversity and conservation of *O. sinensis* under natural and laboratory conditions along with its sustainable management, with the objective of conservation (*in situ* and *ex situ*) and proper utilization of this resource.

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2010–2015*

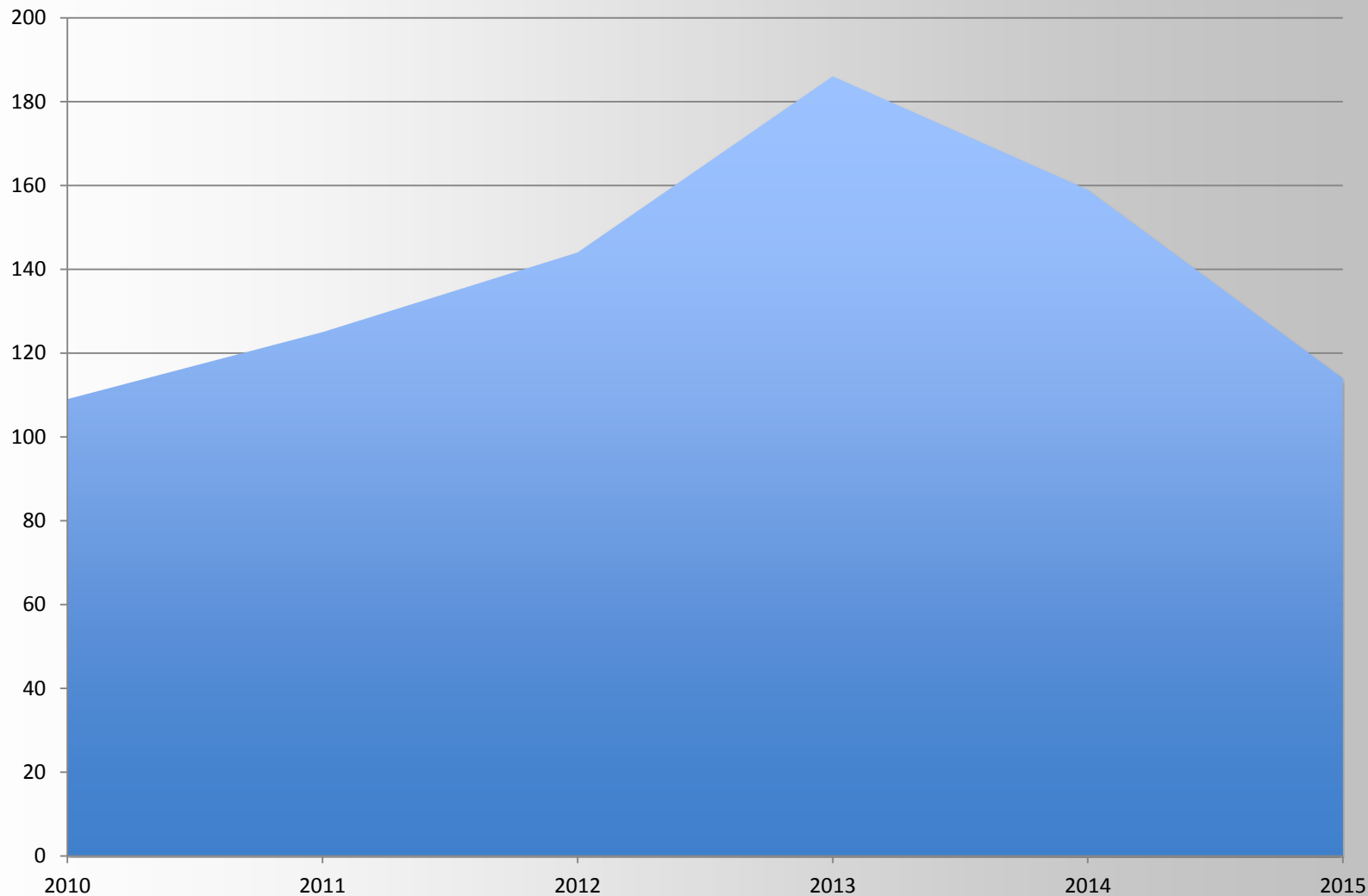
Sagatavoti un izdoti 6 sējumi (18 atsevišķi numuri):

118 raksti (vid. 20 raksti uz sējumu)

836 lapaspuses (vid. 7 lpp. uz rakstu)

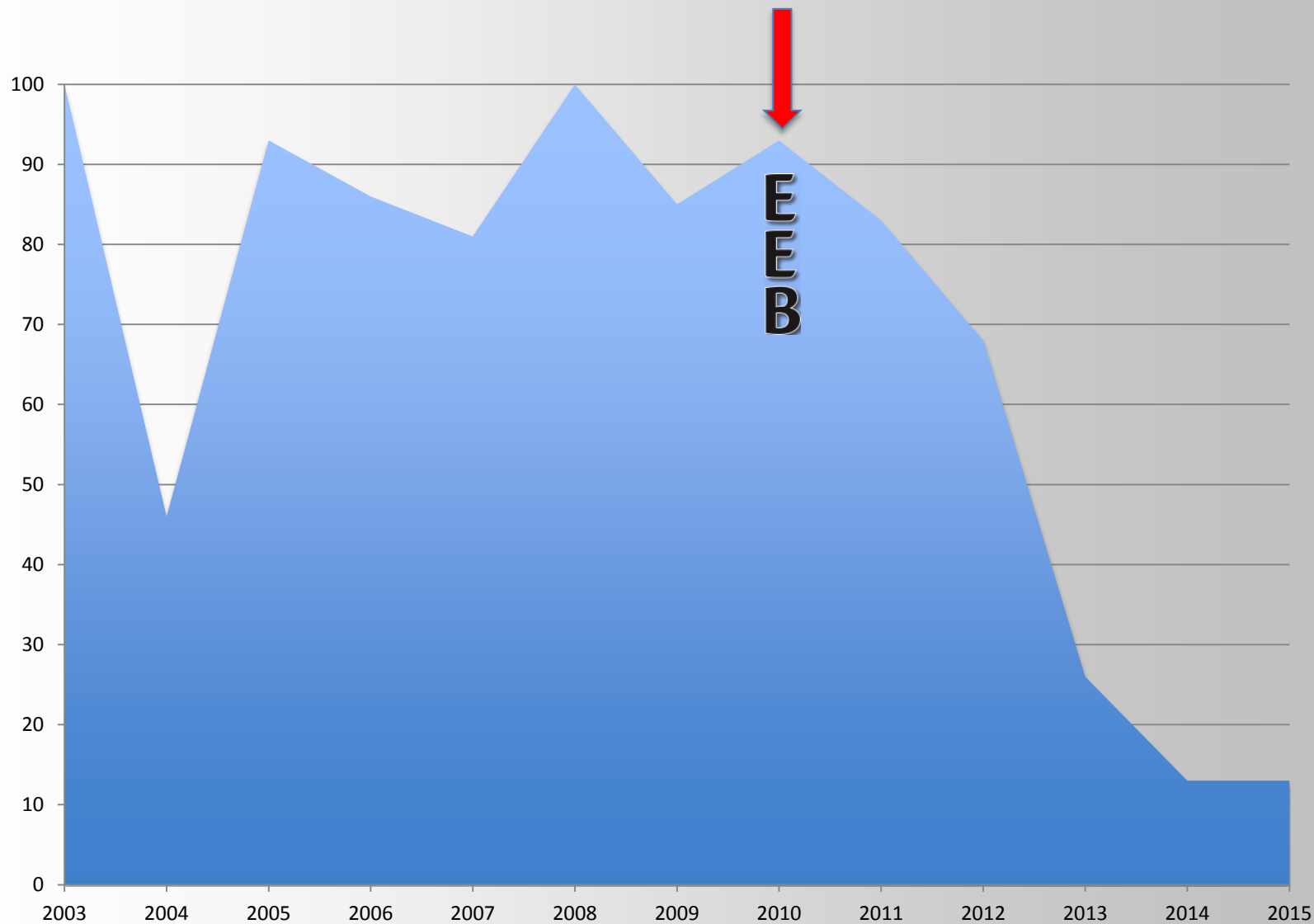
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Bangladesh	2	2	
Belarus	1		1
Cameroon	1		1
China	1	1	
Cote d'Ivoire	1		1
Ethiopia	1	1	
Finland	1	1	
Hungary	1	1	
India	42	21	21
Iran	64	16	48
Iraq	1		1
Japan	5	5	
Jordan	1		1
Latvia	57	53	4
Malaysia	4		4
Nepal	1	1	
Nigeria	21	6	15
Pakistan	1		1
Philippines	1	1	
Saudi Arabia	2	2	
Sweden	1	1	
Thailand	2	1	1
Tunisia	3	1	2
Turkey	5	2	3
Ukraine	4	3	1
Kopā:	224	119	105



Latvijas korespondētājautoru īpatsvars (AUL un EEB)

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Iekļauts datubāzēs:

- Google Scholar
- Directory of Open Access Journals (DOAJ)
- CAB Abstracts
- Zoological Record (Thomson & Reuters)



Izskatīšana iekļaušanai Scopus datubāzē: no 2014. gada

Submission Received
25-Apr-2014

Validated

Enrichment in progress

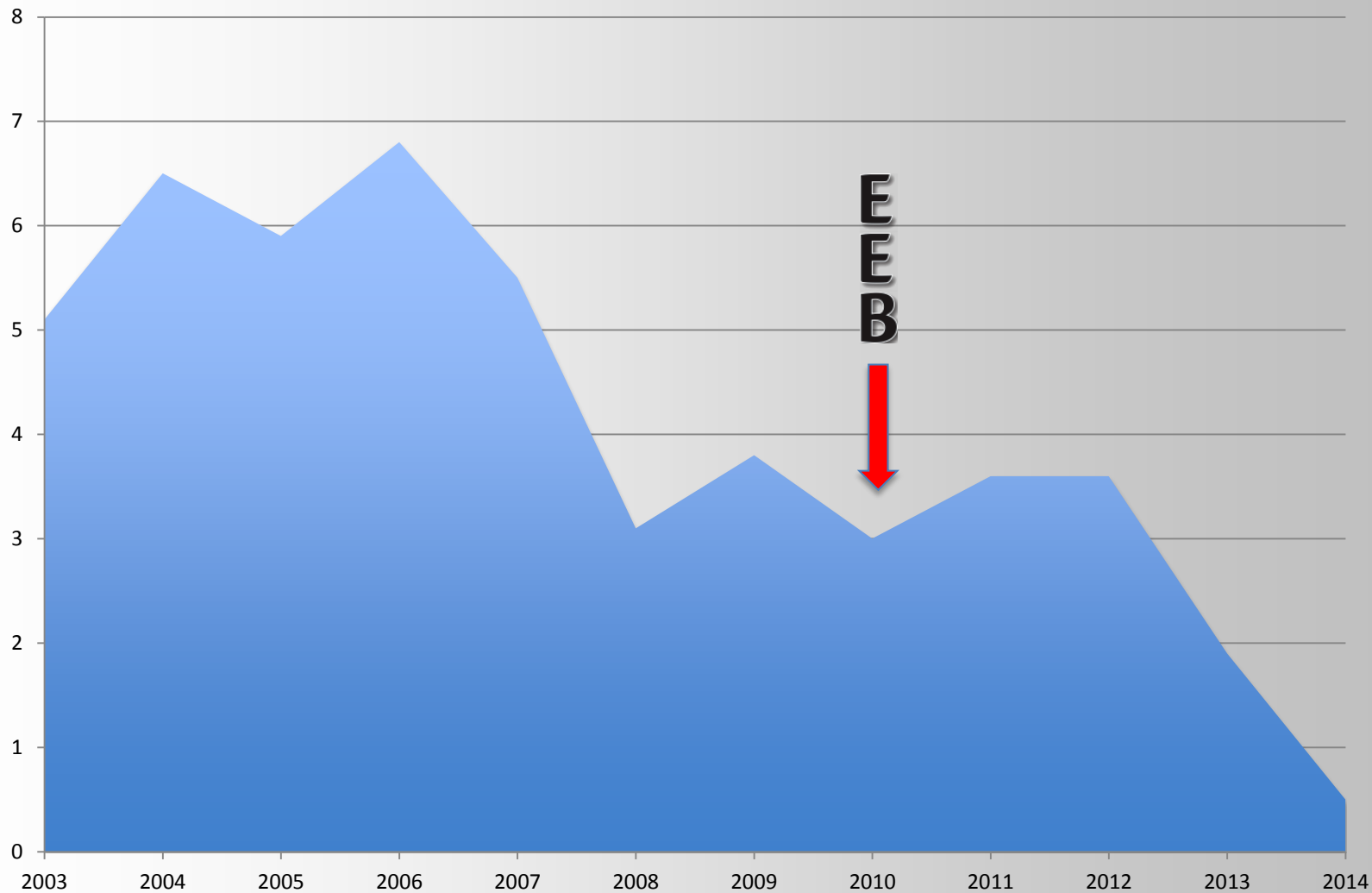
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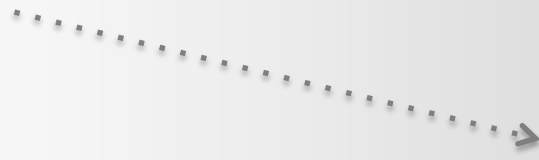
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