# Article information:

Zinc supplementation in practical diets for pond-raised hybrid snakehead (Channa maculate ♀ × Channa argus ♂) fingerlings: Effects on performance, mineral retention and health - ScienceDirect  
<https://www.sciencedirect.com/science/article/pii/S2352513422000576?via%3Dihub=>

# Article summary:

1. Zinc is an essential micronutrient for fish and plays a crucial role in many important biochemical processes, including growth, metabolic and immune function, gene regulation, and reproduction.

2. Dietary zinc supplementation can improve growth parameters, antioxidant capacity, and innate immunity in pond-raised hybrid snakehead fingerlings.

3. The optimum zinc concentration in a practical diet for fingerlings hybrid snakeheads ranges from 81.94 to 101.05 mg kg-1.

# Article rating:

May be slightly imbalanced: The article presents the information in a generally reliable way, but there are minor points of consideration that could be explored further or claims that are not fully backed by appropriate evidence. Some perspectives may also be omitted, and you are encouraged to use the research topics section to explore the topic further.

# Article analysis:

作为一篇科学研究论文，该文章在方法和结果方面都有其可信度。然而，在讨论和结论部分，作者可能存在一些偏见和宣传内容。

首先，作者强调了锌对鱼类的重要性，并提出了适当的饲料中锌含量范围。然而，他们没有探讨过高剂量的锌是否会对鱼类产生负面影响。这是一个潜在的风险因素，需要更多的研究来确定最佳剂量范围。

其次，在讨论中，作者只关注了锌对生长、免疫力和抗氧化能力的影响，但并未考虑其他可能受到影响的因素。例如，高剂量的锌是否会影响鱼类的行为或生殖能力等方面。

此外，在结论部分，作者提出了适当饲料中锌含量范围，并建议将其用于实际养殖中。然而，他们并未提供足够的证据来支持这个主张。更多的实验数据和野外试验需要进行才能确定最佳剂量范围。

总之，该文章在方法和结果方面具有可信度，但在讨论和结论部分存在一些偏见和宣传内容。需要更多的研究来确定最佳剂量范围，并考虑其他可能受到影响的因素。

# Topics for further research:

* High dose zinc and negative effects on fish
* Other potential impacts of high dose zinc on fish
* Lack of evidence to support recommended zinc levels in feed
* Need for more experimental data
* Field trials to determine optimal dosage range
* Consideration of other factors that may be affected by high dose zinc.

# Report location:

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