The Genome of Snakehead Fish



Hafsa Aziz Intro.To Genomic 485 Fall2021

Outline

- General information.
- Genome paper.
- General genome information
- Sequencing strategy
- Sequencing methods
- Genome assembly
- Genome outcome



• Has long body and cylindrical shape(90cm ,8kg)



• Can live without water for 4 days.



 Usually Lives on freshwater, and can survive in the most extreme heat water.



 It is hunted as a food source especially in Africa and China.



Genome paper



Giga Science, 6, 2017, 1–5

doi: 10.1093/gigascience/gix011 Advance Access Publication Date: 2 March 2017 Data Note

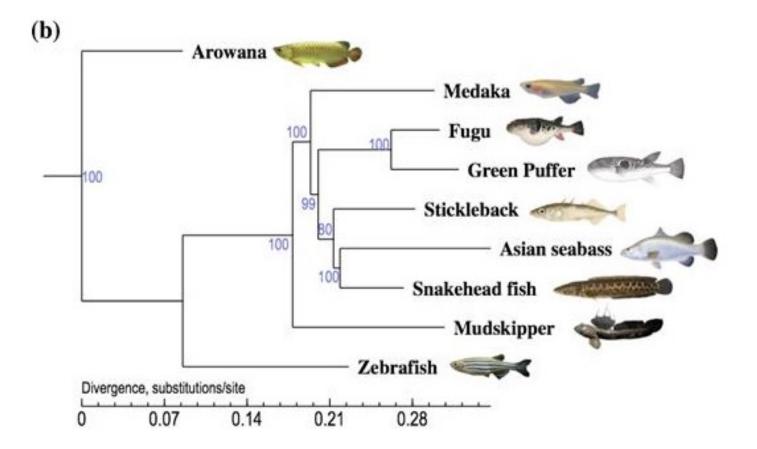
DATA NOTE

Draft genome of the Northern snakehead, Channa

argus

Jian Xu^{1,†}, Chao Bian^{2,3,4,†}, Kunci Chen^{5,†}, Guiming Liu⁶, Yanliang Jiang¹, Qing Luo⁵, Xinxin You^{2,3}, Wenzhu Peng^{1,7}, Jia Li³, Yu Huang³, Yunhai Yi³, Chuanju Dong^{1,8}, Hua Deng⁹, Songhao Zhang¹, Hanyuan Zhang¹, Qiong Shi^{2,3,10,*} and Peng Xu^{1,7,*}

General genome information



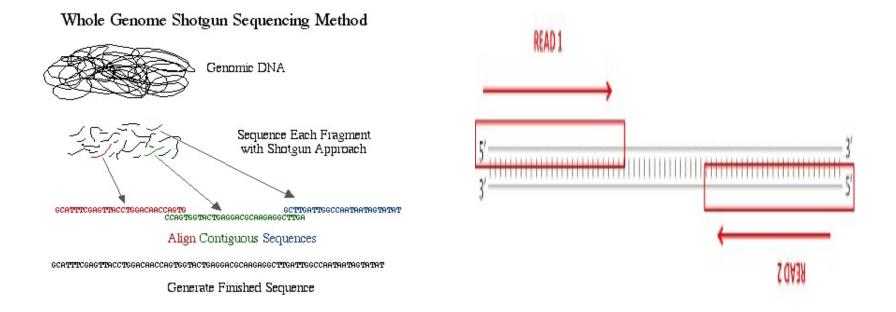
General genome information

- Scientific name (Channa argus).
- Total reads is 140 Gb.
- Genome source (blood sample)



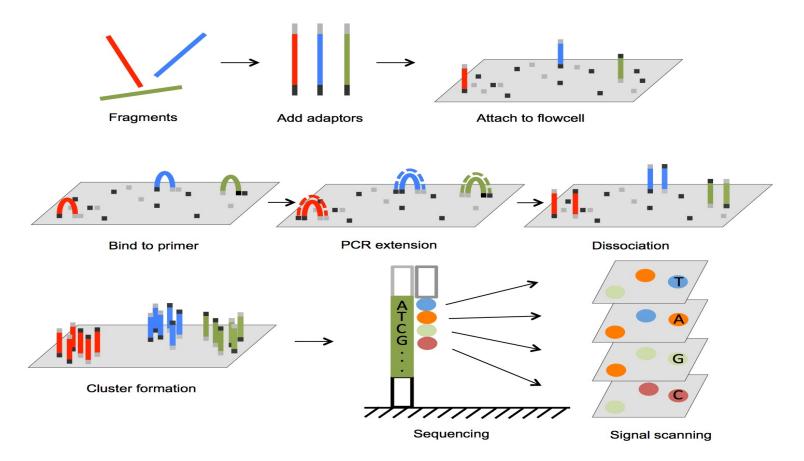
Sequencing strategy

- Whole-genome shotgun sequencing.
- Paired-end sequencing.



Sequencing methods

• Illumina sequence method



Genome assembly

- 615.3Mb was assembled.
- Contig number is 29146bp
- Contig N50 size is 81kb
- Scaffold N50 size is 4.5Mb



Genome outcome

- The repeat sequence is about 18.9%
- Exon length is 175bp
- Intron length is 1537bp
- Mean exon per gene is 10.5

