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*(Oncorhynchus mykiss)*

( I I : II : ) \*

( ) MIC .

...

(Miranda

.and Zemelman, 2002)

(Uhland and

MIC

.Higgins, 2006)

/

MIC

.(Cipriano, 2000)

.(Janda and Abbott, 1996)

.(Miranda and Zemelman, 2002)

Akinbowale .

.(Akinbowale *et al.*, 2007)

(Smith *et al.*,

(Vivekanandhan *et al.*, 2002)

MIC .1994)

.(Miranda and Zemelman, 2002)

<sup>1</sup>TSA

<sup>1</sup> Trypticase Soy Agar

cfu/ml

(NCCLS, 1997)

TSA

Urea, Catalas,  
Oxides, MR-VP, Nitrate, MIS, Glucose, Simmon  
citrate, TSI, OF

(  
)  
: (MIC)

MIC

[National Committee for Clinical  
Laboratory Standards(NCCLS), 1997]

(Whitman and Mac Nair,

2004)

)

(

/ )

/ )  
( /

( cfu/ml)

<sup>2</sup> Minimum inhibitory concentration

1.

urea	Catalase	Oxidase	VP	MR	Nitrate	Motility	Indol	H S	Glocuze	Simmon citrate	TSI	of	Of <sup>+</sup>
+	+	+	+	+	+	+		+	+		/	+	+
				+							/	+	+
+			+	+	+		+		+	+	/	+	+
+	+	+	+		+	+	+	+	+	+	/	+	+

urea	Catalase	Oxidase	VP	MR	Nitrate	Motility	Indol	H S	Glocuze	Simmon citrate	TSI	of	Of <sup>+</sup>
+	+			+	+				+	+	/	+	+

urea	Catalase	Oxidase	VP	MR	Nitrate	Motility	Indol	H S	Glocuze	Simmon citrate	TSI	of	Of <sup>+</sup>
+	+	+	+	+	+	+			+	+	/	+	+
+	+	+	+	+	+				+	+	/	+	+
+	+	+	+	+	+	+	+		+	+	/	+	+
+	+	+			+				+	+	/	+	+

urea	Catalase	Oxidase	VP	MR	Nitrate	Motility	Indol	H S	Glocuze	Simmon citrate	TSI	of	Of <sup>+</sup>
+	+	+	+	+	+	+		+	+	+	/	+	+
+	+			+	+			+	+		/	+	+
+	+			+	+			+	+	+	/	+	+
+	+	+	+	+	+	+		+	+		/	+	+

urea	Catalase	Oxidase	VP	MR	Nitrate	Motility	Indol	H S	Glocuze	Simmon citrate	TSI	of	Of <sup>+</sup>
+	+	+	+	+	+	+		+	+		/		+
+	+	+	+	+	+	+	+	+	+	+	/		+
+	+			+	+					+	/		+
+	+			+	+					+	/		+
+	+	+	+	+	+	+	+	+	+		/		+

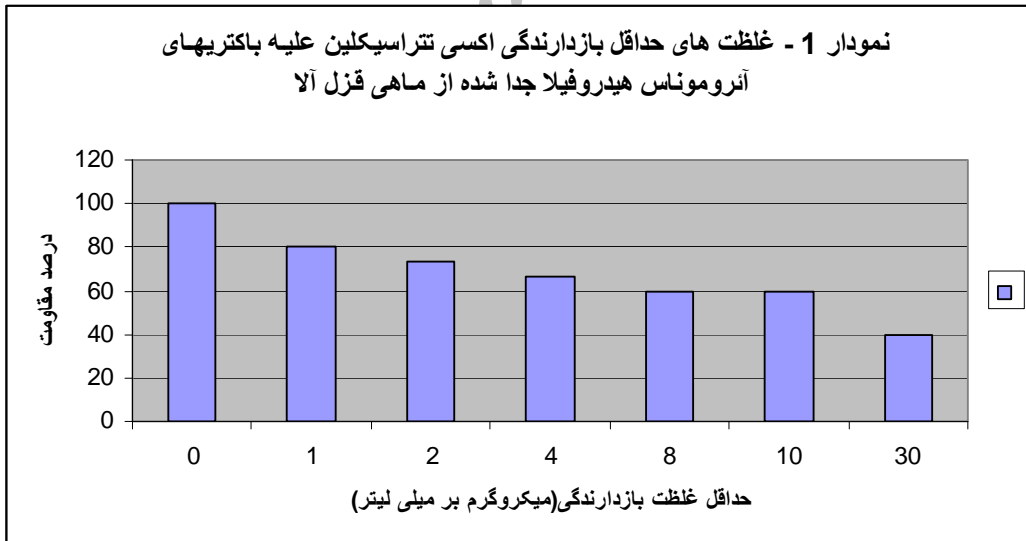
urea	Catalase	Oxidase	VP	MR	Nitrate	Motility	Indol	H S	Glocuze	Simmon citrate	TSI	of	Of <sup>+</sup>
+	+	+	+	+	+	+	+	+	+	+	/	+	+
+	+			+	+	+	+	+			/	+	+
											/	+	+
+	+	+	+	+	+	+			+	+	/	+	+

..

urea	Catalase	Oxidase	VP	MR	Nitrate	Motility	Indol	H <sub>2</sub> S	Glucose	Simmon citrate	TSI	of	Of <sup>+</sup>
	+	+	+	+	+	+			+		/	+	+

)

(.



(2005) Hatha

(Cipriano, 2000)

Miranda and Zemelman (2002)

Archive of SID

(Uhland and Higgins, / MIC 2006)

(Miranda and Zemelman,2002) bacilli MIC Spangaard ( ) MIC

efflux MIC (Miranda and Zemelman,2002)

,MIC ( ) Akinbowal

(Miranda and (1995) Kerry Zemelman,2002)

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## Evaluation of Oxytetracycline Resistance in *Aeromonas hydrophila* Isolated from Reared *Oncorhynchus mykiss*

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### Abstract

The intensive use of antimicrobial agents worldwide for prophylactic and therapeutic purposes has been associated with increase of bacterial resistance in the exposed microbial environment. Oxytetracycline is the most frequently used antibacterial in the cold water fish industry because of its broad spectrum of activity and low cost. *Aeromonas hydrophila* and other motile aeromonads are among the most common bacteria in freshwater habitats throughout the world, and these bacteria frequently cause disease among cultured fishes. In this study, 50% of isolates from intestine of rainbow trout were identified as *Aeromonas hydrophila* by using biochemical technique. Oxytetracycline MIC<sub>s</sub> were determined using agar dilution method at dosage 0,1,2,4,8,10 µl/ml. % of *Aeromonas hydrophila* was resistant to 30 µg/ml of oxytetracycline. The use of oxytetracycline in aquaculture might produce some negative impact on the treatment of human infections as a consequence of either direct transmission of resistant pathogens to humans, or indirectly through the transfer of resistance genes from environmental bacteria to human pathogens which is major risk for public health.

**Keywords:** Antibiotic resistance, *Oncorhynchus mykiss*, *Aeromonas hydrophila*

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