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摘要(中)	<p>本研究旨在探討 ATP 生物冷光方法應用於生魚片鮮度品質之快速檢測，同時並使用感官判定與 pH 值來檢測生魚片之鮮度，期望能找出 ATP 生物冷光之 RLU 值、總生菌數、感官判定與 pH 值間之關聯，並能以 ATP 生物冷光之 RLU 值取代傳統之微生物檢測，快速預測生魚片之總生菌數。依實驗結果以 SAS 9.1 版統計資料分析方法對實驗數據進行統計分析。實驗結果顯示生魚片之總生菌數生長受到外在污染與貯藏溫度之影響甚鉅。由傳統市場購入之旗魚魚肉若要生食，則冷藏於 5°C 貯藏溫度下不可放置超過 72 小時，若於 10°C 貯藏溫度下則不可放置超過 42 小時。鮭魚魚肉若要生食，則於 5°C 貯藏溫度下，貯藏時間不可超過 48 小</p>

	<p>時，若於 10°C 貯藏溫度下，貯藏時間以不超過 30 小時為佳；實驗結果亦證實鮭魚生魚片之腐敗較旗魚生魚片快速，且鮭魚之感官變化亦較旗魚明顯，若要從外觀來判定旗魚魚肉是否新鮮則不太恰當。另外，由於 pH 值變化較不明顯，若要依據 pH 值來推測旗魚生魚片之鮮度品質與腐敗情形，其結果仍有待考量；旗魚與鮭魚生魚片之結果顯示，於冷藏溫度下，ATP 生物冷光方法所得之 RLU 值與總生菌數間皆具有高度之相關性 ($p < 0.05$)。將總生菌數與 RLU 值做迴歸運算以求得迴歸方程式，再將所測得之 RLU 值代入方程式中，結果顯示實測之總生菌數與迴歸方程式所得之預測總生菌數的結果無顯著差異 ($p > 0.05$)。實驗結果證實 ATP 生物冷光方法可迅速地檢測出魚體表面之微生物污染狀況並確實適用於旗魚與鮭魚生魚片之微生物檢測。</p>
<p>摘要 (英)</p>	<p>The relationship between fish flesh surface bioluminescence RLU (Relative Luminant Units) values and its aerobic plate counts, was studied for raw marlin and salmon during storage at 5°C and 10°C in an attempt to use RLU to rapidly assess its aerobic plate counts. Changes of sensory qualities (including appearance, smell, and touch) and flesh pH were also observed during the storage. The results indicated that marlin bought at traditional markets should not be stored at 5°C for more than 72 hours and 10°C for more than 42 hours, for raw consumption. For the consumption of raw salmon, the storage time should not exceed 48 and 30 hours for 5°C and 10°C respectively. Salmon spoiled at a faster rate than marlin and its changes of sensory qualities coincide well with the changes of microbiological quality. For marlin, appearance was not a good indicator of freshness. Changes of flesh surface pH were also found unable to indicate the microbiological quality of fish flesh. RLU values were found to be highly correlated with the total bacterial counts on the surface of raw fish ($p < 0.05$). The resulted linear regression equation was tested for its efficacy to predict the total counts. Test results showed that the predicted total counts were found not to be significantly differently from the actual counts ($p > 0.05$).</p>
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