

# Terrence R Tiersch

## List of Publications by Year in descending order

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71  
papers

1,758  
citations

279487

23  
h-index

315357

38  
g-index

73  
all docs

73  
docs citations

73  
times ranked

779  
citing authors

#	ARTICLE	IF	CITATIONS
1	Design, alpha testing, and beta testing of a 3-D printed open-hardware portable cryopreservation device for aquatic species. <i>Journal of Applied Aquaculture</i> , 2023, 35, 213-236.	0.7	11
2	The emerging role of open technologies for community-based improvement of cryopreservation and quality management for repository development in aquatic species. <i>Animal Reproduction Science</i> , 2022, 246, 106871.	0.5	18
3	Is catalase an effective additive to alleviate oxidative stress during cryopreservation of zebrafish sperm at the repository level?. <i>Cryobiology</i> , 2022, 104, 70-78.	0.3	4
4	An open hardware 3-D printed device for measuring tensile properties of thermoplastic filament polymers at cryogenic temperatures. <i>Cryogenics</i> , 2022, 121, 103409.	0.9	7
5	Low-Cost Resin 3-D Printing for Rapid Prototyping of Microdevices: Opportunities for Supporting Aquatic Germplasm Repositories. <i>Fishes</i> , 2022, 7, 49.	0.7	11
6	An Open-Hardware Insemination Device for Small-Bodied Live-Bearing Fishes to Support Development and Use of Germplasm Repositories. <i>Animals</i> , 2022, 12, 961.	1.0	5
7	A practical evaluation of machine learning for classification of ultrasound images of ovarian development in channel catfish ( <i>Ictalurus punctatus</i> ). <i>Aquaculture</i> , 2022, 552, 738039.	1.7	7
8	An Impedimetric Sensing Probe Based on Printed Circuit Board Technology for Monitoring in Cryobiology Applications. <i>Journal of the Electrochemical Society</i> , 2021, 168, 067505.	1.3	2
9	A 3D Printed Vitrification Device for Storage in Cryopreservation Vials. <i>Applied Sciences (Switzerland)</i> , 2021, 11, 7977.	1.3	11
10	A generalized approach for sperm cryopreservation in the genus <i>Pomoxis</i> : Sperm cryopreservation and fertilization efficiency of black stripe black crappie, <i>Pomoxis nigromaculatus</i> . <i>Journal of the World Aquaculture Society</i> , 2021, 52, 405-417.	1.2	1
11	Development of an open hardware 3-D printed conveyor device for continuous cryopreservation of non-batched samples. <i>Aquacultural Engineering</i> , 2021, 95, 102202.	1.4	10
12	3-D printed customizable vitrification devices for preservation of genetic resources of aquatic species. <i>Aquacultural Engineering</i> , 2020, 90, 102097.	1.4	14
13	Temporal and Concentration Effects of Methanol on Cryopreservation of Zebrafish ( <i>Danio rerio</i> ). <i>Journal of Applied Aquaculture</i> , 2020, 32, 102097.	0.784314	9
14	Microfabrication of low-cost customisable counting chambers for standardised estimation of sperm concentration. <i>Reproduction, Fertility and Development</i> , 2020, 32, 873.	0.1	9
15	Three-Dimensional Printing of Vitrification Loop Prototypes for Aquatic Species. <i>Zebrafish</i> , 2019, 16, 252-261.	0.5	11
16	Development of germplasm repositories to assist conservation of endangered fishes: Examples from small-bodied livebearing fishes. <i>Theriogenology</i> , 2019, 135, 138-151.	0.9	26
17	Three-dimensional printing can provide customizable probes for sensing and monitoring in cryobiology applications. <i>Cryobiology</i> , 2019, 88, 64-69.	0.3	7
18	On-Site Capabilities of a Mobile Laboratory for Aquatic Germplasm Cryopreservation. <i>North American Journal of Aquaculture</i> , 2019, 81, 349-363.	0.7	6

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19	Cryopreservation of sperm bundles (spermatozeugmata) from endangered livebearing goodeids. <i>Cryobiology</i> , 2018, 82, 49-56.	0.3	8
20	Design and Cost Analysis of a Self-Contained Mobile Laboratory for Commercial-Scale Aquatic Species Cryopreservation. <i>Journal of the World Aquaculture Society</i> , 2018, 49, 805-826.	1.2	8
21	Changes to Extender, Cryoprotective Medium, and <i>In Vitro</i> Fertilization Improve Zebrafish Sperm Cryopreservation. <i>Zebrafish</i> , 2018, 15, 279-290.	0.5	45
22	Evaluation of Commercial-Scale Approaches for Cryopreservation of White Crappie, <i>Pomoxis annularis</i> , Sperm. <i>Journal of the World Aquaculture Society</i> , 2018, 49, 725-734.	1.2	3
23	Activation of free sperm and dissociation of sperm bundles (spermatozeugmata) of an endangered viviparous fish, <i>Xenotoca eiseni</i> . <i>Comparative Biochemistry and Physiology Part A, Molecular &amp; Integrative Physiology</i> , 2018, 218, 35-45.	0.8	11
24	A Strategy for Sperm Cryopreservation of Atlantic Salmon, <i>Salmo salar</i> , for Remote Commercial-Scale High-Throughput Processing. <i>Journal of the World Aquaculture Society</i> , 2018, 49, 96-112.	1.2	24
25	Quality evaluation of sperm from livebearing fishes: Standardized assessment of sperm bundles (spermatozeugmata) from <i>Xenotoca eiseni</i> (Goodeidae). <i>Theriogenology</i> , 2018, 107, 50-56.	0.9	12
26	The role of alkalinization-induced Ca <sup>2+</sup> influx in sperm motility activation of a viviparous fish Redtail Splitfin ( <i>Xenotoca eiseni</i> ). <i>Biology of Reproduction</i> , 2018, 99, 1159-1170.	1.2	11
27	Addressing Reproducibility in Cryopreservation, and Considerations Necessary for Commercialization and Community Development in Support of Genetic Resources of Aquatic Species. <i>Journal of the World Aquaculture Society</i> , 2018, 49, 644-663.	1.2	26
28	Production of live young with cryopreserved sperm from the endangered livebearing fish Redtail Splitfin ( <i>Xenotoca eiseni</i> , Rutter, 1896). <i>Animal Reproduction Science</i> , 2018, 196, 77-90.	0.5	7
29	A microfluidic device for motility and osmolality analysis of zebrafish sperm. <i>Biomedical Microdevices</i> , 2018, 20, 67.	1.4	14
30	Cryobanking of aquatic species. <i>Aquaculture</i> , 2017, 472, 156-177.	1.7	170
31	3-D printing provides a novel approach for standardization and reproducibility of freezing devices. <i>Cryobiology</i> , 2017, 76, 34-40.	0.3	26
32	Challenges in Development of Sperm Repositories for Biomedical Fishes: Quality Control in Small-Bodied Species. <i>Zebrafish</i> , 2017, 14, 552-560.	0.5	27
33	Standardized Assessment of Thin-Film Vitrification for Aquatic Species. <i>North American Journal of Aquaculture</i> , 2017, 79, 283-288.	0.7	11
34	Determination of sperm concentration using flow cytometry with simultaneous analysis of sperm plasma membrane integrity in zebrafish <i>Danio rerio</i> . <i>Cytometry Part A: the Journal of the International Society for Analytical Cytology</i> , 2016, 89, 350-356.	1.1	13
35	High-Throughput Cryopreservation of Sperm from Sex-Reversed Southern Flounder, <i>Paralichthys lethostigma</i> . <i>Journal of the World Aquaculture Society</i> , 2016, 47, 555-565.	1.2	7
36	Three-dimensional printing with polylactic acid (PLA) thermoplastic offers new opportunities for cryobiology. <i>Cryobiology</i> , 2016, 73, 396-398.	0.3	40

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37	A Procedure-Spanning Analysis of Plasma Membrane Integrity for Assessment of Cell Viability in Sperm Cryopreservation of Zebrafish <i>Danio rerio</i> . <i>Zebrafish</i> , 2016, 13, 144-151.	0.5	18
38	Cryopreservation in fish: current status and pathways to quality assurance and quality control in repository development. <i>Reproduction, Fertility and Development</i> , 2016, 28, 1105.	0.1	47
39	Microfluidics and numerical simulation as methods for standardization of zebrafish sperm cell activation. <i>Biomedical Microdevices</i> , 2015, 17, 65.	1.4	24
40	Simulation modelling of high-throughput cryopreservation of aquatic germplasm: a case study of blue catfish sperm processing. <i>Aquaculture Research</i> , 2015, 46, 432-445.	0.9	11
41	On-site evaluation of commercial-scale hybrid catfish production using cryopreserved blue catfish sperm. <i>Aquaculture</i> , 2014, 426-427, 88-95.	1.7	22
42	Microfluidic mixing for sperm activation and motility analysis of pearl Danio zebrafish. <i>Theriogenology</i> , 2012, 78, 334-344.	0.9	22
43	High-throughput sperm cryopreservation of eastern oyster <i>Crassostrea virginica</i> . <i>Aquaculture</i> , 2012, 344-349, 223-230.	1.7	25
44	Offspring production with cryopreserved sperm from a live-bearing fish <i>Xiphophorus maculatus</i> and implications for female fecundity. <i>Comparative Biochemistry and Physiology Part - C: Toxicology and Pharmacology</i> , 2012, 155, 55-63.	1.3	8
45	Outlook for development of high-throughput cryopreservation for small-bodied biomedical model fishes. <i>Comparative Biochemistry and Physiology Part - C: Toxicology and Pharmacology</i> , 2012, 155, 49-54.	1.3	9
46	Sources of variation in flow cytometric analysis of aquatic species sperm: The effect of cryoprotectants on flow cytometry scatter plots and subsequent population gating. <i>Aquaculture</i> , 2012, 370-371, 179-188.	1.7	17
47	A planar microfluidic mixer based on logarithmic spirals. <i>Journal of Micromechanics and Microengineering</i> , 2012, 22, 055019.	1.5	49
48	Production of F <sub>1</sub> Offspring with Vitrified Sperm from a Live-Bearing Fish, the Green Swordtail <i>Xiphophorus hellerii</i> . <i>Zebrafish</i> , 2011, 8, 167-179.	0.5	28
49	High-throughput cryopreservation of spermatozoa of blue catfish ( <i>Ictalurus furcatus</i> ): Establishment of an approach for commercial-scale processing. <i>Cryobiology</i> , 2011, 62, 74-82.	0.3	71
50	Current status of sperm cryopreservation in biomedical research fish models: Zebrafish, medaka, and <i>Xiphophorus</i> . <i>Comparative Biochemistry and Physiology Part - C: Toxicology and Pharmacology</i> , 2009, 149, 224-232.	1.3	75
51	Sperm cryopreservation of a live-bearing fish, <i>Xiphophorus couchianus</i> : Male-to-male variation in post-thaw motility and production of F1 hybrid offspring. <i>Comparative Biochemistry and Physiology Part - C: Toxicology and Pharmacology</i> , 2009, 149, 233-239.	1.3	22
52	Field Collection, Handling, and Refrigerated Storage of Sperm of Red Snapper and Gray Snapper. <i>North American Journal of Aquaculture</i> , 2008, 70, 356-364.	0.7	15
53	Production of F1 Interspecies Hybrid Offspring with Cryopreserved Sperm from a Live-Bearing Fish, the Swordtail <i>Xiphophorus hellerii</i> . <i>Biology of Reproduction</i> , 2007, 76, 401-406.	1.2	28
54	Development of a simplified and standardized protocol with potential for high-throughput for sperm cryopreservation in zebrafish <i>Danio rerio</i> . <i>Theriogenology</i> , 2007, 68, 128-136.	0.9	103

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55	Cryoprotectant optimization for sperm of diploid Pacific oysters by use of commercial dairy sperm freezing facilities. <i>Aquaculture</i> , 2007, 271, 537-545.	1.7	24
56	Control of sperm concentration is necessary for standardization of sperm cryopreservation in aquatic species: Evidence from sperm agglutination in oysters. <i>Cryobiology</i> , 2007, 54, 87-98.	0.3	64
57	Sperm cryopreservation in fish and shellfish. <i>Society of Reproduction and Fertility Supplement</i> , 2007, 65, 493-508.	0.2	29
58	Effect of osmotic immobilization on refrigerated storage and cryopreservation of sperm from a viviparous fish, the green swordtail <i>Xiphophorus helleri</i> . <i>Cryobiology</i> , 2006, 52, 209-218.	0.3	39
59	Standardization of photometric measurement of sperm concentration from diploid and tetraploid Pacific oysters, <i>Crassostrea gigas</i> (Thunberg). <i>Aquaculture Research</i> , 2005, 36, 86-93.	0.9	29
60	Preliminary Assessment of Refrigerated and Frozen Storage of Sperm of the Coppernose Bluegill. <i>North American Journal of Aquaculture</i> , 2005, 67, 187-192.	0.7	5
61	The relationship of the cryoprotectants methanol and dimethyl sulfoxide and hyperosmotic extenders on sperm cryopreservation of two North-American sturgeon species. <i>Aquaculture</i> , 2005, 247, 243-251.	1.7	65
62	Cryopreservation of sperm of red snapper ( <i>Lutjanus campechanus</i> ). <i>Aquaculture</i> , 2004, 238, 183-194.	1.7	28
63	The Use of Dairy Protocols for Sperm Cryopreservation of Blue Catfish <i>Ictalurus furcatus</i> . <i>Journal of the World Aquaculture Society</i> , 2003, 34, 66-75.	1.2	37
64	Effect of Extenders and Osmotic Pressure on Storage of Eggs of Ornamental Common Carp <i>Cyprinus carpio</i> at Ambient and Refrigerated Temperatures. <i>Journal of the World Aquaculture Society</i> , 2002, 33, 254-267.	1.2	8
65	Cost Analysis for Integrating Cryopreservation into an Existing Fish Hatchery. <i>Journal of the World Aquaculture Society</i> , 2000, 31, 51-58.	1.2	29
66	Forced-Air Incubation of Catfish Eggs. <i>Journal of Applied Aquaculture</i> , 1994, 3, 279-284.	0.7	2
67	Cryopreservation of Channel Catfish Sperm: Storage in Cryoprotectants, Fertilization Trials, and Growth of Channel Catfish Produced with Cryopreserved Sperm. <i>Transactions of the American Fisheries Society</i> , 1994, 123, 580-586.	0.6	119
68	Early Growth and Morphology Among Hybrids of Ictalurid Catfishes. <i>Journal of Applied Aquaculture</i> , 1994, 3, 235-256.	0.7	9
69	Natural Occurrence of Triploidy in a Wild Brown Bullhead. <i>Transactions of the American Fisheries Society</i> , 1993, 122, 390-392.	0.6	13
70	Construction of an Inexpensive Low-Temperature Incubator. <i>Progressive Fish-Culturist</i> , 1993, 55, 292-293.	0.6	1
71	Cryopreservation of Sperm of Spotted Seatrout ( <i>Cynoscion nebulosus</i> ). <i>Gulf Research Reports</i> , 0, 9, .	1.0	13