

CURRICULUM VITAE AND LIST OF PUBLICATIONS**Personal Details**

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 Development, Ben Gurion Univ. of the Negev,
 Beer Sheva, P.O. Box 653, 84105, Israel
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LANGUAGES

| | <u>reading</u> | <u>writing</u> | <u>oral capability</u> | <u>comment</u> |
|---------|----------------|----------------|------------------------|--------------------|
| Hebrew | excellent | excellent | excellent | mother tongue |
| English | excellent | excellent | excellent | like mother tongue |
| Spanish | good | good | good | |
| German | quite good | some | good | |
| Italian | fair | minimal | fair | |
| French | some | no | some | |

EMPLOYMENT HISTORY

1968-1971 research assistant, Departments of Geography and Geology, Hebrew University of Jerusalem: Laboratory & field work.

1970-1971 teaching assistant, Department of Geography, Haifa University: inclusive of frontal teaching

1970-1971 teacher, Ministry of Education: Physical Geography of Israel taught to high school teachers

1971-1973 research assistant, Department of Geography, McGill University: lab, exercises and library assistance

1974-1976 research and teaching assistant, Department of Earth Res., Colorado State University: field and lab work & teaching assistance excl. frontal teaching.

1977-1983 lecturer, Department of Geography, Ben Gurion University of the Negev, Beer Sheva, Israel: untenured teaching and research

1981 research associate (5 months), Departments of Earth Resources and Civil Engineering, Colorado State University, Colo., USA

1983-1994 senior lecturer, Department of Geography, Ben Gurion University of the Negev, Beer Sheva, Israel: tenured teaching and research

1986 visiting senior lecturer, Department of Geography, University of Canterbury, Christchurch: teaching undergraduate and graduate courses and taking part in postgraduate supervision

1994-2001 associate professor, Department of Geography & Environmental Development, Ben Gurion University of the Negev, Beer Sheva, Israel

1995 visiting professor (2 months) at the Univ. of Newcastle, NSW, Australia

1996 visiting professor, Physical Geography Laboratory, University of Lyon 3, Lyon, France

1995-1999 Chairman, Department of Geography & Environmental Development, Ben Gurion University of the Negev, Beer Sheva, Israel

2000-2001 Leverhulme visiting professor, Loughborough University, UK.

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|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2001-2016 | professor, Department of Geography & Environmental Development, Ben Gurion University of the Negev, Beer Sheva, Israel |
| 2002, 2003 | visiting professor at Department of Rural Engineering, University of Cordoba, Cordoba, Spain; total 6 months |
| 2005-2006 | visiting professor, Laboratory of Erosion Control, Division of Forestry, School of Agriculture, Kyoto University, Kyoto, Japan |
| 2010 | visiting professor, Faculty of Geology, Department of Geodynamics, Complutense University, Madrid, Spain |
| 2011, 2012 | visiting professor, Laboratory of the study of Transfer in Hydrology and Environment (LTHE), Observatoire des Sciences de l'Université de Grenoble (OSUG), Joseph Fourier University, Grenoble, France |
| Febr 2013 | visiting professor, University of Trento, Department of Civil, Environmental and Mechanical Engineering |
| Oct-Nov 2015 | Visiting Fellow, Japan Society for the Promotion of Science - Disaster Prevention Research Institute, Kyoto University |
| January, 2016 | visiting professor, Faculty of Geology, Department of Geodynamics, Complutense University, Madrid, Spain |
| Febr-Mar 2016 | visiting professor, Institute of Geosciences and Geography, Martin-Luther University Halle Wittenberg, Halle (Saale), Germany |
| Apr-Aug 2016 | visiting professor, Department of Earth and Environmental Science, New Mexico Institute of Mining and Technology, Socorro, NM, USA |
| Oct 2016 | Professor Emeritus, Ben Gurion University of the Negev; continue research (research grants and supervision of graduate students, postdocs; research associates). |
| April 2017 | hired as researcher; Ben Gurion University of the Negev |
| Nov. 2019- | Adjunct Professor, Dept. of Earth & Environmental Sci., New Mexico Institute of Mining and Technology |

MEMBERSHIP IN PROFESSIONAL / SCIENTIFIC SOCIETIES

American Geophysical Union (1980-); British Geomorph. Research Group (1981-); British Hydrol. Soc. (1986-); European Geophysical Society (1995-); International Association Hydraulic Research (1994-2002; 2015-); International Association Hydrological Sciences (1995-); Israel Geological Society (1988- alternate years); Israel Geomorph. Research Group (1994-); Israel Geographical Society (1977-); Israel Association for Water Resources (1980-); Israel representative to Int'l Commission Remote Sensing & Data Transmission in Hydrol. (1981-82); World Association of Soil & Water Conservation (1986-). BRIC co-founder (2005-10); WASER: World Association of Sedimentation and Erosion Research (2005-).

Chairman of the Israel Association for Water Resources (1998-2002). Member of Research Committee: Israel Dept Agr., Soil and Water Conservation Unit (1995-2010);

Voluntary advice to the Society for the Protection of the Environment; Ministry of Environment and Nature Reserves Authority; Israel Educational TV, Japan National TV, Shiqma-Besor Drainage Authority, high schools.

Editorial board *Israel Journal of Earth Sciences* until 2010.

Editorial board *Geomorphology* (2013)

Editorial Board *Hareshet Hageografit* (2012-2016)

Chairman Scientific Committee, Dead Sea-Arava Science Center (2016-) voluntary. I serve on the board as BGU representative, with particular attention to the researchers, to their

advancement (obtaining academic equivalent titles) and veering the Center for Flood Research in Deserts.

SCIENTIFIC PUBLICATIONS

EDITED BOOKS and JOURNAL VOLUMES

- 1 Laronne, J.B. and Mosley, M.P. (eds.), 1982. **Erosion and Sediment Yield** - Benchmark Papers in Geology, Vol. 63, Hutchinson Ross, Stroudsburg, Pennsylvania, 375pp. Chapter 1. General Principles, 1-12; Chapter 2. Processes of Erosion and Sediment Transport, 76-85; Chapter 3. Controls upon Erosion Rates, 146-154; Chapter 4. Man's Influence on Erosion, 248-254; Chapter 5. Rates of Erosion, 298-302.
- 2 Anthony, D., Ethridge, F., Harvey, Laronne, J.B. and Mosley, M.P. (eds): 2001. **Applying Geomorphology to Environmental Management**. Water Resources Publ. ISBN 1-887201-29-7, Highland Ranch, Colo., 504 pp.
- 3 Laronne, J.B., 2008. **Geomorphological Research in Israel**. Dedicated to the important research of Dan Bowman and Aharon Yair in the field of geomorphology and Quaternary geology. Israel Journal of Earth Sciences vol. 57 (3-4), Laronne, J.,B., (visiting ed.).
- 4 Gray, J.R., Laronne, J.B. and Marr, JDG, 2010. **Surrogate Bedload Monitoring Techniques**. U.S. Geological Survey Scientific Investigations Report 2010-5091, 37 p., also available at <http://pubs.usgs.gov/sir/2010/5091> . The 26 included papers are available online at <http://pubs.usgs.gov/sir/2010/5091/papers/listofpapers.html> .
- 5 Tsutsumi, D. and Laronne, J.B., eds. 2017. **Gravel-bed Rivers: Processes and Disasters**. 28 chapters and introduction. 798 pp. Wiley Blackwell. ISBN: 978-1-118-97140-6.

REFEREED CHAPTERS IN COLLECTIVE VOLUMES:

1. Laronne, J.B., 1982. Solute and sediment yield from Mancos Shale. p. 181-193 *in* Yair, A. and Bryan, R.B. (eds.): **Badland Geomorphology and Piping**. Geoabstracts, Norwich, 408pp.
2. Laronne, J.B. and Shen, H.W., 1982. Temporal and spatial variations of solute pickup during runoff generation on saline hillslopes. p. 449-462 *in* Singh, V.P. (ed.): **Rainfall Runoff Modeling; Modeling Components of the Hydrological Cycle**. Water Resources Publ., Littleton, Colorado, 590pp.
3. Laronne, J.B., 1985. Rate limitation and dissolution of highly soluble minerals. p. 83-97 *in* Colman, S.M. and Dethier, P. (eds.): **Rates of Chemical Weathering of Rocks and Minerals**. Academic Press, New York, 603 pp.
4. Laronne, J.B., 1987. Rhythmic couplets: sedimentology and prediction of reservoir design periods in semiarid areas. p. 229-244 *in* Wurtele, M.G. and Berkofsky, L. (eds.): **Progress in Desert Research**. Rowman and Littlefield, Totowa, N.J., 353pp.
5. Laronne, J.B., Duncan, M.J. and Rodley, P.A.. 1986. Bar Dynamics in the North Branch Ashburton River. p. 230-239 *in* Smart, S.M. and Thompson, S.M. (eds.): **Ideas on the Control of Gravel Bed Rivers**. Ministry of Works and Development Hydrology Center Publication 9, Christchurch, New Zealand, 248pp.
6. Laronne, J.B., 1990. Probability distribution of event sediment yields in the Northern Negev, Israel. p. 481-492 *in* Boardman, J., Foster, I. and Dearing, J. (eds.): **Soil Erosion in Agricultural Land**. Wiley, London.
7. Laronne, J.B., and Duncan, M.J., 1992. Bedload transport paths and gravel bar formation. p. 177-202 *in* Billi, P., Hey, R.D. Thorne, C.R. and Tacconi, P. (eds.): **Dynamics of Gravel Bed Rivers**. Wiley, Chichester, 673 pp.

8. Laronne, 1992. Discussion of Reid, I. et al.: Microform roughness elements, environment and entrapment. p. 270-273 in Billi, P., Hey, R.D., Thorne, C.R. and Tacconi, P. (eds.): **Dynamics of Gravel Bed Rivers**. Wiley, Chichester, 673 pp.
9. Laronne, J.B. and Outhet, D.N., 1992. Discussion of Andrews E.D. and Smith J.D.: Calculating marginal bedload transport rates of gravel. p. 49-50 in Billi, P., Hey, R.D. Thorne, C.R. and Tacconi, P. (eds.): **Dynamics of Gravel Bed Rivers**. Wiley, 673 pp.
10. Ergenzinger, P., de Jong, C., Reid, I., and Laronne, J.B. 1994. Short term temporal variations in bedload transport rates: Squaw Creek, Montana, USA and Nahal Yatir and Eshtemoa, Israel. p. 251-264 in Schmidt, C.H. and Ergenzinger, P. (eds.): **Lecture Notes in Earth Sciences**, v. 52: **Dynamics & Geomorph of Mountain Rivers**, Springer Verlag.
11. Ben-Asher, J., Prinz, D., Laronne, J.B. and Abravia, I., 1995. Greenhouse rooftop harvesting: A case study under Mediterranean conditions. **Proc. Eur. Water Res. Assoc: Water Resources Management in The Mediterranean Under Drought or Water Shortage Conditions**. Nicosia Symp.
12. Powell, D.M., Reid, I., Laronne, J.B. and Frostick, L.E., 1998. Cross stream variability of bedload flux in narrow and wider ephemeral channels during desert flash floods. p. 177-196 in Klingeman, P., Beschta, R., Komar, P., and Bradley, B., (eds.): **Gravel-Bed Rivers in the Environment**, Water Resources Publications, LLC, Highlands Ranch, Colorado, 832 pp.
13. Duncan, M.J. and Laronne, J.B., 1998. Bedload movement in a wide, gravel bed river: an indication of bar formation. p. 741-748 in Klingeman, P., Beschta, R., Komar, P., and Bradley, B., (eds.): **Gravel-Bed Rivers in the Environment**, Water Resources Publications, LLC, Highlands Ranch, Colorado, 832 pp.
14. Habersack, H.M., Nachtnebel, H.P. and Laronne, J.B., 1998. The hydraulic efficiency of a slot sampler: flow velocity measurements in the Drau River, Austria. p. 749-754 in Klingeman, P., Beschta, R., Komar, P., and Bradley, B., (eds.): **Gravel-Bed Rivers in the Environment**, Water Resources Publications, LLC, Highlands Ranch, Colorado, 832 pp.
15. Reid, I., Powell, D.M. and Laronne, J.B. 1998. Flood flows, sediment fluxes and reservoir sedimentation in upland desert rivers. pp. 377-386 in Reid, I. Howard Wheater and Phil Johnson (eds). **Hydrology in a Changing Environment**. Wiley, Chichester.
16. Reid, I., Laronne, J.B. and Powell, D.M., 1999. Impact of major climate change on coarse-grained river sedimentation - a speculative assessment based on measured flux. pp 105-115 in A.G. Brown and T. Quine (eds.) **Fluvial Processes and Environmental Change**. John Wiley and Sons, Chichester.
17. Horvitz-Mizrahi, S., Ben-Asher, J., Amiel, A., Laronne, J. B., and Shevah, Y., 1999. Contamination of ground water and its impact on agroproductivity in coastal deserts. The case coastal Gaza Strip. pp. 71-81 in L.S. Peirera (ed. - The Portuguese National Committee on Irrigation and Drainage): **Proceedings of the First Inter-Regional Conference on Environment-Water Innovative Issues in Irrig. & Drainage**. Lisbon.
18. Adar, E.M. and Laronne, J.B., 2000. Implementation of mixing-cell modeling for identifying and quantifying sources of recharge and pollution into a riverbed aquifer along an ephemeral stream. Pp. 1029-1034 in L.R. Bentley, J.F. Sykes, W.G. Gray, C.A. Brebbia and G.F. Pinder (eds): **Computational Methods in Water Resour.** Balkema.
19. Laronne, J.B. and Wilhelm, Ralf, 2001. Shifting stage-volume curves: predicting event sedimentation rate based on reservoir stratigraphy. 33-54 in Anthony, D., Ethridge, F., Harvey, M., Laronne, J.B. and Mosley, M.P. (eds): **Applying Geomorphology to Environmental Management**. Water Resources Publ., Highlands Ranch, Colo., 504 pp.
20. Laronne, J.B., Garcia, C. and Reid, I., 2001. Mobility of patch sediment in gravel bed streams: patch character and its implications for bedload. Pp. 249-289 in M. Paul Mosley (editor), **Gravel-Bed Rivers V**, New Zealand Hydrological Society Inc., Wellington, New Zealand. ISBN 0-473-07486-9.

21. Lekach, Y. Alexandrov, Y and Laronne, J.B. 2008. Fluvial Sediment. pp. 113-144 in Ben Zvi, A., Shachaf, N. and Zedaka, N. **Rivers and Drainage: Engineering and Planning**. Bsr Shiqma Water Authority, ISBN (in Hebrew).
22. Reid, I., Graham, D., Laronne, J.B. and Rice, S. 2010. Ancillary data requirements for the validation of surrogate measurements of bedload flux: non-invasive bed material grain size and definitive measurements of flux. p. 387-399 in J. R. Gray, J. B. Laronne, and J.D.G. Marr (eds.): **Surrogate Bedload Monitoring Techniques**. U.S. Geological Survey Scientific Investigations Report, SIR 2010-5091, 37 pp. also available at <http://pubs.usgs.gov/sir/2010/5091> . The 26 included papers are available online at <http://pubs.usgs.gov/sir/2010/5091/papers/listofpapers.html> .
23. Gray, J.R., Laronne, J.B., Osterkamp, W.R. and Vericat, D., 2010. Bedload Research International Cooperative – BRIC. In eds: J. R. Gray, J. B. Laronne, and J. D.G. Marr (eds): **Surrogate Bedload Monitoring Techniques**. U.S. Geological Survey Scientific Investigations Report, SIR 2010-5091, 37 pp. also available at <http://pubs.usgs.gov/sir/2010/5091> . The 26 included papers are available online at <http://pubs.usgs.gov/sir/2010/5091/papers/listofpapers.html> .
24. Mizuyama, T., Oda, A., Laronne, J.B., Nonaka, M., and Matsuoka, M. 2010. Laboratory tests of a Japanese pipe hydrophone for continuous monitoring of coarse bedload, 2010. p. 319-335 in J. R. Gray, J. B. Laronne, & J. D.G. Marr (eds.): **Surrogate Bedload Monitoring Techniques**. U.S. Geological Survey Scientific Investigations Report SIR 2010-5091, 37 pp. also available at <http://pubs.usgs.gov/sir/2010/5091> . The 26 included papers are available online at <http://pubs.usgs.gov/sir/2010/5091/papers/listofpapers.html>
25. Mizuyama, T., Laronne, J.B., Nonaka, M., Sawada, T., Satofuka, Y., Matsuoka, M., Yamashita, S., Sako, Y., Tamaki, S., Watari, M., Yamaguchi, S., and Tsuruta, K. 2010. Calibration of a passive acoustic bedload monitoring system in Japanese mountain rivers. 296-318 in J. R. Gray, J. B. Laronne, & J. D.G. Marr (eds.): **Surrogate Bedload Monitoring Techniques**. U.S. Geological Survey Scientific Investigations Report SIR 2010-5091, 37 pp. also available at <http://pubs.usgs.gov/sir/2010/5091> . The 26 included papers are available online at <http://pubs.usgs.gov/sir/2010/5091/papers/listofpapers.html>
26. Safriel, U.N., Berliner, P., Novoplansky, A., Laronne, J.B., Karnieli, A., Itzhak, M., Kharabsheh, A., Ghaleb, A. M., Kusek, G., Kapur, S., 2010. **Soil Erosion-Desertification and the Middle Eastern Anthroscapes**. Pp. 57-124 in Selim Kapur, Hari Eswaran & W.E.H. Blum (eds.): Sustainable Land Management – Learning from the past for the future. Springer, NY. ISBN 978-3-642-14781-4.
27. Siebert, C., Rödiger, T., Geyer, S., Laronne, J.B., Hillel, N., Sauter, M., Mallast, U., 2016. Multidisciplinary investigations of the transboundary Dead Sea basin and its water resources. pp.107-127 in: Borchardt, D., Bogardi, J., Ibisch, R., (eds.): **Integrated Water Resources Management: Concept, Research and Implementation**. Springer, DOI 10.1007/978-3-319-25071-7_1.
28. Halfi, E., Deshpande, V., Johnson, J.P., Katoshevski, D., Reid, I., Storz-Peretz , Y. & Laronne, J.B. 2018. Characterization of bed load discharge in flood bores and very unsteady flows in an ephemeral channel. River Flow 2018. **E3S Web of Conferences 40, 02036 (2018)**, <https://doi.org/10.1051/e3sconf/20184002036>

ARTICLES IN SCIENTIFIC JOURNALS:

1. Yaalon, D.H. and Laronne, J.B., 1972. Internal structure of eolianites and paleowinds, Mediterranean Coast, Israel. **Journal of Sedimentary Petrology**, 41(4), 1059-1064.
2. Laronne, J.B. and Carson, M.A., 1976. Interrelationships between bed morphology and bed material transport for a small gravel bed channel. **Sedimentology**, 23, 67-85.

3. Shen, H.W., Enck, E., Sunday, G.K. and Laronne, J.B., 1979. Salt loading from Hillslopes. **International Association Hydraulic Research**, 5, 99-105.
4. Laronne, J.B., 1981. Dissolution kinetics of soluble minerals from Mancos Shale associated alluvium. **Earth Surface Processes**, 6, 541-552.
5. Laronne, J.B. and Schumm, S.A., 1982. Soluble mineral content in surficial alluvium and associated Mancos Shale. **Water Resources Bulletin**, 18(1), 27-35.
6. Laronne, J.B. and Shen, H.W., 1982. The effect of erosion on solute pickup from Mancos Shale hillslopes. **Journal of Hydrology**, 59, 189-207.
7. Hassan, M.A., Schick, A.P. and Laronne, J.B., 1984. The recovery of flood - dispersed coarse sediment particles - a three-dimensional magnetic tracing method. **Catena**, Suppl. Bd. 5, 153-162.
8. Laronne, J.B., 1988. Discussion of Richard Hereford's: Sediment yield history of a small basin in southern Utah, 1937-1976. Implications for land management and geomorphology. **Geology**, 16, 955-957.
9. Laronne, J.B. and Duncan, M.J., 1989. Constraints on duration of sediment storage in a wide, gravel bed river, New Zealand. **Int'l Assoc. Hydrological Sciences**, Publ. 184, 165-172.
10. Laronne, J.B., 1990. Formation of gravel bars, Nahal Besor. **Ofakim Begeografia**, 31, 185-190. (in Hebrew).
11. Laronne, J.B., Outhet, D.N., Duckham, J.L. and McCabe, T.J., 1992. Determining event bedload volumes for evaluation of potential degradation sites due to gravel extraction, N.S.W., Australia. **Int'l Assoc. Hydrological Sciences**, Publ., 210, 87-94.
12. Laronne, J.B., Reid, I., Yitshak, Y. and Frostick, L.E., 1993. Recording bedload discharge in a semiarid channel, Nahal Yatir, Israel. **Int'l Assoc. Hydrol. Sci.**, Publ. 210, 79-86.
13. Laronne, J.B. and Reid, I., 1993. Very high rates of bedload sediment transport by ephemeral desert rivers. **Nature**, 366, 148-150 and 113, doi:10.1038/366148a0.
14. Laronne, J.B., Outhet, D.N., Carling, P.A. and McCabe, T.J., 1994. Scour chain employment in gravel bed streams. **Catena**, 22, 299-366.
15. Laronne, J.B., Reid, I., Yitshak, Y. and Frostick, L.E., 1994. The non-layering of gravel streambeds under ephemeral flood regimes. **Journal of Hydrology**, 159, 353-363, doi:10.1016/0022-1694(94)90266-6.
16. Reid, I., Laronne, J.B., Powell, D.M. and Garcia, C., 1994. Flash floods in desert ephemeral rivers. **EOS (Am. Geophys. Union)**, 75 (39), 452-453.
17. Reid, I. and Laronne, J.B., 1995. Bedload sediment transport in an ephemeral stream and a comparison with seasonal and perennial counterparts. **Water Resources Research**, 31 (3), 773-781, doi:10.1029/94WR02233.
18. Reid, I., Laronne, J.B. and Powell, D.M., 1995. The Nahal Yatir data base. **Earth Surface Processes and Landforms**, 20, 845-857.
19. Reid, I., Powell, D.M. and Laronne, J.B., 1996. Prediction of bedload transport by desert flash-floods. **Journal Hydraulic Engineering (Am. Soc. Civ. Eng.)** 122, 170-173, doi:10.1061/(ASCE)0733-9429(1996)122:3(170).
20. Laronne, J.B., Reid, I., Meerovich, L. and Powell, D.M., 1996. Discussion of H.H. Chang: "Selection of gravel-transport formula for stream modeling." **Journal Hydraulic Engineering (Am. Soc. Civ. Eng.)** 122(3), 170-173.
21. Powell, D.M., Reid, I., Laronne, J.B. and Frostick, L.E., 1996. Bedload as a component of sediment yield from a semiarid watershed of the northern Negev. **Int'l Assoc. Hydrological Sciences**, Publ. 236, 389-397.
22. Reid, I., Laronne, J.B. and Powell, D.M., 1998. Flashflood and bedload dynamics of desert gravel-bed streams. **Hydrological Processes**, 12, 543-557.

23. Meirovich, L., Laronne, J.B. and Reid, I. 1998 The variation of water-surface slope and its significance for bedload transport during floods in gravel-bed streams. **Journal of Hydraulic Research**, 36, (2), 147-157.
24. Garcia, C., Laronne, J.B. and Sala, M., 1999. Variable source areas of bedload in a gravel bed stream. **Journal of Sedimentary Research**, 69 (1), 39-43.
25. Powell D.M., Reid I., Laronne J.B. 1999. Hydraulic interpretation of cross-stream variations in bed-load transport. **Journal Hydraulic Engineering** (Am. Soc. Civ. Eng.), 125(12), 1243-1252, doi:10.1061/(ASCE)0733-9429(1999)125:12(1243).
26. Garcia, C., Laronne, J.B. and Sala, M., 2000. Continuous monitoring of bedload flux in a mountain gravel-bed river. **Geomorphology**, 34, 23-31.
27. Laronne, J.B. 2000. Event-based deposition in the ever-emptying Yatir Reservoir, Israel. **Int'l Assoc. Hydrological Sciences Publ.** 261, 285-302.
28. Habersack, H, Nachtnebel, P.N. and Laronne, J.B., 2001. The continuous measurement of bedload discharge in a large alpine gravel bed river with a slot sampler. **Jour. Hydraulic Research**, 39, 125-133.
29. Powell, D.M., Reid, I. and Laronne, J.B. 2001. Evolution of bedload grain-size distribution with increasing flow strength and the effect of flow duration on the calibre of bedload sediment yield in ephemeral gravel-bed rivers. **Water Resources Research**, 37 (5), 1463-74, doi:10.1029/2000WR900342.
30. Habersack, H.M. and Laronne, J.B. 2001. Bedload texture in an alpine, gravel bed river. **Water Resources Research**, 37(12), 3359-3370.
31. Habersack, H.M. and Laronne, J.B., 2002. Evaluation of bedload discharge formulas based on large Helley-Smith bedload sampling in the alpine gravel bedded Drau River. **Jour. Hydraulic Engineering**, 128(5), 484-499.
32. Alexandrov, Y., Laronne, J.B. and Reid, I., 2003. Suspended sediment concentration and its variation with water discharge in a dryland ephemeral channel, northern Negev, Israel. **Journal of Arid Environments**, 53(1), pp 73-84.
33. Powell, D.M., Laronne, J.B. and Reid, I., 2003. The dynamics of bedload sediment transport in ephemeral gravel-bed rivers. **Advances in Environmental Monitoring and Modelling**, <http://www.kcl.ac.uk/advances>.
34. Alexandrov, Y., Laronne, J.B. and Reid, I., 2003. Suspended sediment transport in flash floods of the semiarid Northern Negev, Israel. p. 346-352. **Int'l Assoc. Hydrol. Sci. Publ.** 278, 346-352.
35. Laronne, J.B., Alexandrov, Y., Bergman, N., Cohen, H., Garcia, C., Habersack, H., Powell, D.M. and Reid, I., 2003. The continuous monitoring of bedload flux in various fluvial environments. **Int'l Assoc. Hydrol. Sci. Publ.** 283, 134-145.
36. Cohen, H., and Laronne, J.B., 2005. High rates of sediment transport by flashfloods in the Southern Judean Desert, Israel. **Hydrological Processes**, 19, 1687-1702, doi: 10.1002/hyp.5630.
37. Alexandrov, Y., Laronne, J.B. and Reid, I., 2007. Intra-event and inter-seasonal behaviour of suspended sediment in flash floods of the semi-arid northern Negev, Israel. **Geomorphology**, 85, 85-97. doi:10.1016/j.geomorph.2006.03.013.
38. Laronne, J.B. and Shlomi, Y., 2007. Depositional character and preservation potential of coarse grained sediments deposited by flood events in hyper-arid braided channels in the Rift Valley, Arava, Israel. **Sedimentary Geology**, 195(1-2), 21-37. doi:10.1016/j.sedgeo.07.008.
39. Wittenberg, L., Laronne, J.B. and Newson, M.J., 2007. Bed clusters in humid perennial and Mediterranean ephemeral gravel-bed streams: the effect of clast size and bed material sorting. **Journal of Hydrology**, 334, 312-318.

40. Bergman, N., Laronne, J.B., and Reid, I. 2007. Benefits of design modifications for the Birkbeck bedload sampler illustrated by floods in an ephemeral gravel-bed channel. **Earth Surface Processes and Landforms**, 32, 317-328. doi:10.1002/esp.1453.
41. Garcia, C., Cohen, H., Reid, I., Rovira, A., Ubeda, X. and Laronne, J.B., 2007. Processes of initiation of motion leading to bedload transport in gravel-bed rivers. **Geophysical Research Letters**, 34, L06403, doi:10.1029/2006GLO28865, 2007.
42. Osterkamp, W.R., Gray, J.R., Laronne, J.B. and J. Martin, J.R., 2007. Structure and composition of a watershed-scale sediment information network. **International Jour. of Sediment Research**. 22(3), 238-246.
43. Liébault, F. and Laronne, J.B., 2008. Factors affecting the evaluation of bedload transport in gravel-bed rivers using scour chains and painted tracers: the case of the Esconavette Torrent. **Geodinamika Acta**, 21/1-2, 23-34.
44. Habersack, H.M., Seitz, H and Laronne, J.B., 2008. Spatio-temporal variability of bedload rate: analysis and 2D modelling approach. **Geodinamika Acta**, 21/1-2, 67-79.
45. Cohen, S., Svoray, T. and Laronne, J.B. and Alexandrov, Y., 2008. FuDEM: a temporally dynamic catchment scale soil erosion model based on fuzzy logic. **Journal of Hydrology**, 356 (1-2), 185-198. DOI 10.1016/j.jhydrol.2008.04.010
46. Oda, A. Mizuyama, T., Laronne, J.B., Nonaka, M., Matsuoka, M., 2008. Flume experiments to examine hydrophone characteristics. **Journal Japan Society Erosion Control Engineering**, 60 (5), 66-71.
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RESEARCH ACTIVITY

GRADUATE STUDENTS

1. Marwan A. Hassan (MSc): Dispersion of transported bedload (with Asher Schick), 1983.
2. Avram Dodi (MA): Modelling runoff with a parametric cell model (with Eilon Adar), 1986.
3. Yitshak Yitshak (MA): Temporal and spatial variations in bedload texture, 1994.
4. Ralf Wilhelm, (Dipl. Eng.): Reservoir life spans in the Arava, 1995.
5. Pash Hatukai (MA): Estimation of recharge and distribution of pollutants along Nahal Beer Sheva and Nahal Besor (with Eilon Adar), 1996.
6. Yitschak Abravia (MA): Rainfall distribution and water yield on greenhouses in the NW Negev (with Yiftah Ben Asher), 1996.

7. Helmut Habersack (PhD) at the Vienna Universitat fur Bodenkultur, Institut fur Wasserwirtschaft, Hydrologie und konstruktiven Wasserbau: Spatio-temporal variabilities in the bedload regime and its management in the Drau River. (informal, with Peter Nachtnebel & Radler), 1997.
8. Celso Garcia (PhD): *cum laude* at Universitat de Barcelona: Mechanisms of bedload transport and bed patches (with Maria Sala and Juan M. Vide), 1997.
9. Ina Seydell, (Dipl. Eng.): Effects of land use on soil erosion , Ruhama Basin, Israel, 1998.
10. Shira Horowitz, (MA): Contamination of groundwater and its a impact on agroproductivity in coastal deserts – the case of coastal Gaza Strip (with Yiftah Ben-Asher), 1998.
11. W.G. Wengwang Zhao, (PhD): Energy balance of agrometeorologically monitored plants in a semiarid environment (with Pedro Berliner supervisor and Avraham Zangvil), 2000.
12. Joel Efrat (MA): Temporal variations in soil chemistry due to forest planting and forest growth in the Negev Desert (with Moshe Silberbush), 2000.
13. Hadass Cohen (MA): The effect of soil texture and moisture on nitrogen mineralization originating from added leaves of Eucalyptus and Acacia in the Negev Desert. (with Moshe Silberbush supervisor and Pedro Berliner), 2001
14. Lea Wittenberg (PhD): Gravel bed structures. supervisory assistance upon request of committee (with Malcolm Newson supervisor and Moshe Inbar), 2001.
15. Nurit Agam-Ninari (PhD): Dew on bare soil as a supplier of soil moisture (Pedro Berliner supervisor), 2005.
16. Yulia Alexandrov (PhD): Water quality of flash-flood waters in semiarid areas (with I. Reid), 2005.
17. Saggy Cohen (MA): Evaluating soil erosion potential using a fuzzy logic GIS model: Shiqma Basin (with Tal Svoray supervisor), 2006.
18. Hai Cohen, (PhD): Sediment transport from South Judean Desert canyons to the Dead Sea, 2006.
19. Ofer Sholker (MA): Urban drainage effects on fluvial geomorphology in the semiarid north western Negev, 2006.
20. Shirly Krispel-Tagar (MA): Extent of pollution in Nahal Secher floodwaters draining the Ramat Hovav Industrial Complex, 2006.
21. Yanai Shlomi (MA): Matrix content as an indicator of fluvial dynamics in gravel (conglomerate) stratigraphy, 2006.
22. Ilana Frank-Wener (MA): The effect of afforestation on runoff and sediment yield in a semiarid area. 2006 (with Yulia Alexandrov).
23. Itamar Shapira (MA): Channels incised due to lowering of the Dead Sea at Nahal Zeelim and Eyn Fescha Springs (with Dan Bowman), 2006.
24. Yael Storz-Peretz (MA): Entrenchment of Nahal Qedem into its alluvial fan due to the receding Dead Sea (with Dan Bowman supervisor and Tal Svoray), 2006.
25. Nathaniel Bergman (MA): Coarse-grained bedload texture in an ephemeral channel, Nahal Eshtemoa, 2007.
26. Neta Negauker (MSc): Pollution along channels in the Besor Basin (with Lior Assaf supervisor and Alon Tal), 2007.
27. Noa Balaban (MSc): Heavy metals and organic compounds adsorbed to suspended sediment from Nahal Secher floodwaters draining the Ramat Hovav Industrial Complex (with Shimon Feinstein), 2008.
- 27 Matan Chocron (MA): The effect of vegetation on gullying with reference to runoff and sediment yield in the semiarid Bikhra Basin (with Yulia Alexandrov), 2009.
- 28 Dina Vachtman (PhD): Formation of entrenched channels: turbulence, microforms and spatio-temporal variations in discharge of the Ein-Fescha Springs: Western Dead Sea shore. 2009.

- 29 Yoav Sharfi (MA): The effect of grazing activity on runoff generation and soil erosion in the semi-arid N. Negev (with Pedro Berliner and Yulia Alexandrov), 2010.
- 30 Anat Grinman (MSc). Surface water inflow to the Dead Sea. (with Arie Ben Zvi and Asher Brenner), 2010.
- 31 Gal Vaisblat (MA): Historic pollution levels in the Hovav Plateau based on adsorption of heavy metals to soil (with Amos Banin), 2011.
- 32 Yaniv Munwes (MA): Determining the 3D flow structure and discharge (SGD) of spring water upwelling through the bed of the Dead Sea. 2012.
- 33 Alon Yaron (MA): Bedload sources from zero and 1st order drainage basins (with Yulia Alexandrov). 2013.
- 34 Cristina Martín Moreno (PhD): Sediment yield in the fluvial system of the Upper Tagus Nature Park (with José Francisco Martín Duque supervisor and José Manuel Nicolau Ibarra – Complutense University, Madrid). 2013.
- 35 Ronel Barzilai (PhD): Effects of patchiness on bedload initiation, flux and texture (with Ian Reid). 2013
- 36 Yael Storz-Peretz (PhD): Braided river form, texture and stratigraphy in drylands and comparison with humid counterparts. 2013
- 37 Ana Lucia Vela (PhD): Quantification of geomorphological processes in gullies active in sandy hillslopes (Fm. Utrillas) of Segovia: Availability, transport production and connectivity (with José Francisco Martín Duque, Complutense University, Madrid). 2013
- 38 Noa Hillel (MA): Discharge and water quality of the Lower Jordan River. 2013
- 39 Thomas Geay (PhD): Hydrophone measurement of bedload sediment transport in rivers (with Philippe Belleudy - Laboratoire d'Etude des Transferts en Hydrologie et Environnement (LTHE), Université Joseph Fourier, Grenoble). 2013
- 40 Adi Rosenthal-Katzir (MSc): Planning alternatives for rehabilitation of riverbed mining sites in northern Negev channels (with Avital Gazit, Porter School of Environmental Science, Tel Aviv University). 2014
- 41 Daniel Zamler (MA): Determination of the cross sectional surface and average velocity of ephemeral and intermittent flood flows using radar. 2014
- 42 Jan N. van Minnen (MSc minor): Suspended sediment budget in the Merdero Stream, Upper Tagus River, Spain. (with Saskia Keesstra supervisor and Jose Francisco Martin Duque; Wageningen University). 2014
- Kleber Cavalho Lima (PhD student at Universidade Estadual de Campinas supervised by Archimedes Perez Filho): 2015 half-year stay on quaternary landscape evolution and present day processes in semiarid areas (with Yoav Avni, Geol. Survey Israel).
- 43 Noam Levi (MSc): Identification of solute sources to first flushes and recessions in Wadis Secher and Hovav (with Eilon Adar, BGU School of Desert Studies). 2015
- 44 Yuval Lorig (MA): Reconstructing the geo-hydrological aspects of the Early Pleistocene fresh water body in Nahal Zihor, the Southern Negev (with Hanan Ginat). 2016
- 45 Dror Paz (MA): Use of passive acoustic sensors for monitoring bedload transport in a semi-arid environment – Nahal Eshtemoa. 2017
- 46 Ignacio Zapico Alonso (PhD): Gravelly sand bedload transport and quarry site reclamation in the Alto Tajo, Castilla La Mancha (with José Francisco Martín Duque – Complutense University, Madrid). 2017.
- 47 Adam Eshel (MSc): Flash flood generation and alert in the Judean Desert (with Pinhas Alpert, Tel Aviv University, Dept. of Geophysics). 2017
- 48 Aya Cohen (MSc): Runoff and soil loss on natural and artificial hillslopes at the Oron Phosphate Mine as background for optimal reclamation (with Liran Goren, Dept. Geology & Environmental Sciences, BGU and Eli Argaman, Israel Ministry of Agriculture). 2018

- 49 Omer Horowitz (MA): Characterization of the organic load of the Lower Jordan River: the extracellular enzyme activity technique - EEA (with Bernhard Karrasch, UFZ, Germany). 2018
- 50 Kyle Stark (MSc): A two-year study of flash flood characteristics in New Mexican and Israeli ephemeral channels (with Dan Cadol, NMT, Socorro, NM, USA). 2018
- 51 Dagan Lavran (MA): The evolution of Nahal Ze'elim from a geological perspective (with Yoav Avni Israel Geological Survey). 2018
- 52 Yaakov Prois (MSc): Sediment yield from the agricultural Harod Basin (with Liran Goren, Geology BGU and Roey Egozi, Israel Ministry of Agriculture). 2018
- 53 Amir Mor-Mussery (PhD): Evolution of Agrico-ecosystems in differently managed research plots in the Loessial Northern Negev (with Stefan Leu, BGU). 2019
- 54 Noa Hillel (PhD): Identification and modeling of the spatio-temporal variation of water and pollutant inputs to the Lower Jordan River (with Ralf Merz; Christian Siebert, UFZ, Germany). 2019
- 55 Lihi Goldfarb (MSc). The spatio-temporal dimension of the effects of capillary rise, evaporation and kinetics of salt dissolution on water quality of Wadis Hovav and Secher (with Eilon Adar, Desert Res. Institute, Asher Brenner, Environmental Engineering). 2020
- 56 Misgav Goldenberg (MSc): Direct measurements of infiltration rates and transport of oil components above and below the surface of the braided channels of the Evrona Nature Reserve during flood events (with Ofer Dahan Desert Res. Institute and Roey Bernstein, Env. Engineering, BGU). 2020
- 57 Tal Cohen (MSc): 1-D formation of bars and flats in a narrow gravel bed channel – the Yatir (with Yossi Hatzor, Geology BGU). 2020
- 58 Madeline Richards (MSc). Rainfall-runoff relations and transmission losses in the Arroyo de los Piños, NM (with Dan Cadol, NMT, Alex Rhinehart, Socorro, NM, USA). 2020
- 59 Gefen Lemel (MA): Runoff and erosion from natural and reclaimed hillslope plots after open pit phosphate mining in a hyper-arid area, Zin, Israel (with Dan Blumberg, Eli Argaman and Meni Ben Hur, Israel Ministry of Agriculture). 2020
- 60 Nadav Bekin (MA) Soil erosion in the Harod Basin (with Dan Blumberg and Roey Egozi, Israel Ministry of Agriculture). 2020
- 61 Nadav Broner (MSc): The influence of flow events on the incision of steep and coarse-grained channels responding to base-level lowering: Nahal David and Nahal Qedem (with Yael Storz-Peretz, Dead Sea-Arava Research Center and Liran Goren, Geology, BGU). 2020
- 62 Eran Halfi (PhD): Bedload transport under strongly unsteady flows and particle grouping (with David Katoshevsky, Env. Engineering, BGU). 2020

GRADUATE STUDENTS

- 63 Hannah Hennig (PhD): Flashflood modelling in the Judean Desert (with Ralf Merz, Univ. of Halle; Tino Rödinger, UFZ Halle).
- 64 Kyle Stark (PhD): Automatic bedload monitoring in an ephemeral wash, Arroyo de los Piños, New Mexico (with Dan Cadol, NMT, Socorro, NM, USA).
- 65 Ron Nativ (PhD): The role of boulders in the morphology of canyons: effects on and by bedload transport (with Liran Goren, Geology BGU; Jens Turowski, GFZ, Potsdam and Niels Hovious, University of Potsdam).
- 66 Sharllyn Pimentel (MSc). Dynamics of the morpho-sedimentary character of confluences typical of ephemeral tributaries entering a perennial trunk – the Middle Rio Grande (with Dan Cadol, NMT, Socorro, NM, USA).

- 67 Matanya Hamawi (**PhD**): Seismically monitored at-a-station and downstream variations of bedload flux (with Liran Goren, Geology; Susak Bilek, NMT; Jens Turowski, GFZ)
- 68 Naomi Kahana (**MSc**): The fluvio-sedimentary response of the Zeelim fan to the construction of the Dead Sea Works water canal (with Liran Goren, Geology)
- 69 Shulamit Nussboim (**PhD**): Analysis of transport processes of solutes and suspended solids from the catchment to the streams in the Mediterranean Kishon Basin (with Lea Wittenberg, U. Haifa and Orah Moshe, Isreal Ministry of Agriculture).
- 70 Tom Kacholi (**MSc**): Water velocity measurement, calculation of water discharge, friction coefficient and improved stage-discharge curves. (with Avshalom Babad & Eran Halfi, Dead Sea Arava Sci. Center and Itai Haviv, Geology).
- 71 Amit Kalush (**MSc**). Flood generation and fitting a hydrologic model for the Ze'elim Basin. (with Itai Haviv, Geology BGU, Davide Zoccatelli & Eran Halfi).
- 72 Sara Adar (**MSc**). Erosion of the crust-covered sandy terrain in the Yamin Plain, Negev (with Yaron Katzir Geology BGU & Noa Balaban NRCN)
- 73 Sophie Lagarde (**PhD**). Seismic signals: a tool to monitor cracks and a factor in their growth. (main supervisors: Jens Turowski, GFZ & Niels Hovius Univeristy of Potsdam)
- 74 Shmuel Zin (**MSc**). Sediment yield to the Arava Rift Valley based on sedimentation in the Hiyon and Neqarot reservoirs. (with ? and Racheli Armoza Zvuloni)

POSTDOCS

1. Dr. Mark Powell (research associate): Bedload transport in a semiarid area (1992-5 during winters, summers with Ian Reid).
2. Dr. Lev Meerovich: Modelling gravel bedload discharge on a non-uniform bed. (1994-5).
3. Dr. Yulia Alexandrov (postdoc): Sediment yield and transport processes in semiarid scenarious (2005-2008).
4. Dr. Yael Storz-Peretz (postdoc): The texture and morphology of dryland channels vs humid counterparts (2013-15).
5. Dr Yael Storz-Peretz (postdoc shared with Dr. Joel Johnson, Dept. of Geological Sciences, The University of Texas at Austin): Flume study of turbulence and bedload transport in bores. (2015-2016)
6. Dr. Vishal Deshpande (postdoc shared with Prof. David Katoshevski): turbulence in flood bores. (2016-1017)
7. Dr Yael Storz-Peretz (research associate): turbulence and bedload transport in flood bores (2017).
8. Dr. Rachel Armoza-Zvuloni (postdoc): The effect of changes in hydrology and anthropogenic activity on the vitality of Acacias in the southern Negev & Arava (2017-20)
9. Dr. Mike Wine (Fulbright and Kreitman postdoc): Global change impacts on hydrology in the Jordan River headwaters (2017-2019).
10. Dr. Suresh Kumar Thappeta: The hydraulics of and bedload transport by flash flood bores. 2019-2021.

GRANTS

The following organisations have granted research funds since 1985. Laronne was the principal investigator in all projects with the exception of those denoted by @ or other named PI; he was single investigator unless noted otherwise:

1. Ben Gurion University of the Negev, several years for a variety of small projects.
2. Israel Academy of Sciences and Humanities, 1988-91, Bedload discharge in a gravel bedded river: spatial and temporal variations.

3. Israel Hydrological Survey, 1991-1994, Hydrometric and bedload monitoring at Nahal Eshtemoa.
4. Israel Ministry of Agriculture, 1988-90, Rate of soil erosion in the Northern Negev from reservoir (Liman) sedimentation.
5. Israel Ministry of Energy and Infrastructure, 1988-90, Sedimentology of reservoir sediments and its use for the determination of event sediment yields.
6. Israel Nat'l Research Council for Research & Development, 1983-85, Transport of cobbles in a sand channel, Nahal Besor.
7. Jewish National Fund, 1990-91, Rate of soil erosion in the Northern Negev from reservoir (Liman) sedimentation.
8. Jo Alon Regional Study Centre, 1988-89, Sediment yield in the Southern Shephela; its determination from pond sedimentation.
9. Foundation for Quarry Rehabilitation, 1993-94, Gravel and sand extraction in Nahal Besor.
10. National Environ. Res. Council (British NERC), 1993-95, Bedload transport in a semiarid area, to Reid & Frostick in collaboration with Laronne (this UK-funded project cannot be awarded to foreigners, but Laronne has responsibilities equivalent to those of the principal investigators excepting the writing of the final report).
11. @New South Wales Dept. of Water Resources, 1987-92, Bedload transport monitoring and river bed degradation, to Outhet in collaboration with Laronne (Laronne principal investigator excepting expenditure-signing).
12. @New Zealand Ministry of Works, 1985-1988, Bedload transport and dispersion in the aggrading N. Branch Ashburton River, to Duncan and Mosley in collab. with Laronne, (Laronne principal investigator excepting expenditure-signing).
13. Society for the Protection of the Environment, 1991, Gravel mining from Negev Rivers.
14. Ministry of Science, 1994-1997, Determining the temporal distribution of suspended sediment-related water quality in rivers: Nahal Eshtemoa (with Lev Meerovich).
15. Mekoroth Water Co. Ltd. and Negev Development Centre, 1994, Feasibility of locating surface water reservoirs at locations of gravel extraction sites, Nahal Besor.
16. Dead Sea Works Company, 1995-99, Optimisation of gravel mining and estimation of reservoir sedimentation rates in the south eastern coast of the Dead Sea.
17. Mekoroth Water Co. Ltd., 1995, Feasibility of locating surface water reservoirs at locations of gravel extraction sites, Nahal Nitzana.
18. Mekoroth Water Co. Ltd., 1995, Design of the sediment dredging at Shiqma Reservoir.
19. Mekoroth Water Co. Ltd., 1995, Surface water Reservoirs in the Arava: Life span and potential for additional reservoirs.
20. Mekoroth Water Co. Ltd., 1995, Surface water reservoirs at the south western coast of the Dead Sea.
21. Israel Water Authority 1996-2000, Hydrological aspects of feasible operation of surface water reservoirs (with A. Dodi).
22. Israel Water Authority, 1996-1999, Water quality in the southern Hebron Hills.
23. Land Reclamation Authority, 1996-1999. Water quality of desert floods: Nahal Eshtemoa.
24. Land Development Authority, 1996-1998. Effect of trees on soil chemical character in a semiarid area (with M. Silberbush).
25. Land Reclamation Authority, 1999-2002. Water & sediment in the Nahal-Arava and sediment deposition in the Idan Reservoir.
26. Israel Dept of Agriculture, 1999-2002, Soil erosion in the semiarid Southern Hebron Mountains.
27. Shiqma-Besor Drainage Authority, 1999-2002, Semiarid northern Negev urban drainage/erosion.

28. Israel Science Foundation (ISF), 1999-2004. Mechanisms of development of stratification in fluvial gravel.
29. Ramat Hovav local Industrial Council, 2001-2005. Evaluating the pollution from the Hovav industrial complex in Nahal Secher flash-floods.
30. Israel Highway Authority, 2002-2003. The effect of the lowering Dead Sea level on channel incision (**PI: Bowman D.** with T. Svoray).
31. MERC, 2001-2005. Monitoring programme on the effects of afforestation in semiarid areas, a cooperative Middle East project involving Jordanian, Palestinian, Israeli and American scientists. (Laronne co-investigator, **PI: Safriel, U.** with Berliner P., Novoplanski and others).
32. Israel Dept. of Agriculture, 2002-2006. Effect of afforestation on runoff and sediment. (with M. Getker and S. Arbel).
33. Israel Dept of Agriculture, 2002-2005, Evaluating water discharge in ephemeral channels (with Cohen, H.)
34. Dead Sea Drainage Authority, 2002-2005. Monitoring floods and sediment along the Western Dead Sea Coast: Nahal Rahaf and Qana'im (with Cohen, H.).
35. Shiqma-Besor Drainage Authority, 2004-2005, Sand accumulation in selected channels near Heletz (with M. Taig).
36. IALC - Int'l Arid Lands Consortium, 2004-2007, Reducing runoff/soil erosion by afforestation in a semiarid area (with P. Guertin Univ Ariz. and D. Goodrich USDA Tucson).
37. Israel National Roads Company (Ma-atz), 2004-5, Evaluation of the rate of degradation of Nahl (Wadi) Arugot in response to lowering of the Dead Sea (**PI Bowman, D.** with Tal Svoray and S. Dvora).
38. Israel Water Authority, 2004-2006, Determining the spatio-temporal variation of water discharge from the Einot Zukim Springs (with Tal Svoray).
39. Negev Development Authority and Israel Ministry of Adsorption, 2005-06, Full hydrometric characterization of flood volumes in the Negev for planning and construction. (with **PI Isabella Shentsis**)
40. Ramat Hovav local Industrial Council, 2006-2010. Evaluating the concentration and yield of solutes and species adsorbed onto sediments downstream from the Hovav industrial complex in Nahal Secher and Nahal Hovav.
41. Dead Sea Drainage Authority, 2006-2008, Widening of incised channels along the north-western coast of the Dead Sea.
42. Vatav [Israel committee for Tertiary Education Funding] (2006-2008). Rainfall, floods, sediment load and erosion in the Yamin Valley (with **Hai Cohen P.I.** & Dodi, A.).
43. Israel Ministry of Agriculture (2007-9). Rainfall patterns, runoff and sediment transport in the hyperarid Rahaf Basin. (with **Hai Cohen, P.I.**).
44. Israel Water Authority (2007-8). Evaluating flood volume based on flood peak as a method for completion of hydrometric information in Israel. (with **PI Isabela Shentsis**).
45. European Community FP6 (2007-8). CIRCE – Climate Change and Impact Research: The Mediterranean Environment. WP 3: Variations in the terrestrial components of water cycle (with Isabela Shentsis).
46. BMBF (German Ministry of education and Science): SUMAR (2007-10). (**PIs: Laronne and Stefan Geyer**); circum-Dead Sea hydrological cooperation with Palestinians and Jordanians.
47. Israel Ministry of Agriculture (2007-10). Erosion in a semiarid savannisation (Bikhra) basin (with **Yulia Alexandrov, P.I., Hai Cohen**).
48. Israel Ministry of Agriculture (2008-10). Determination of water velocity in ephemeral flash flood wadis. (with **Hai Cohen, P.I.**).

49. Swiss National Science Foundation (SNSF) (2009-12). Sediment transport in steep streams. **(P.I. Dieter Rickenmann** and with Helmut Habersack).
50. Israel Science Foundation (ISF) (2009-13). Discharge of bedload during entire events based on geophone sensing in upland dryland channels. (with Ian Reid).
51. Shiqma-Besor Drainage Authority (2009-2010). Soil Conservation Policy for the Besor Basin.
52. Spanish Ministry of Science (2010-2013). Improvement of the environmental efficiency of mining reclamation through the establishment of hydrogeomorphic and ecohydrologic criteria. **(P.I. José Francisco Martín Duque,** Complutense University, Madrid) and investigators, incl. Jonathan B. Laronne
53. Ramat Hovav Local Industrial Council, 2011-2014. Evaluating the concentration and yield of solutes downstream from the Hovav industrial complex in Nahal Sekher and Nahal Hovav.
54. Dead Sea Drainage Authority (2012-2017). Flood water and sediment yield from wadis draining the Judean Desert to the Dead Sea.
55. DESERVE (2012-17): Circum-Dead Sea Virtual Institute in Hydrology (at BGU-UFZ), Climate and Geophysics; German Helmholtz Society. 2012-2017. P.I. **Ralf Merz & Stefan Geyer**
56. Israel Science Foundation (ISF) (2014-18). Bedload transport in rapidly changing unsteady flows. (with Ian Reid).
57. Southern Jordan River Drainage Authority (2014-17). Spatiotemporal erosion from the Harod Drainage Basin based on water and sediment monitoring.
58. Neot Hovav Local Industrial Council, 2015-2016. Evaluating the concentration and yield of solutes downstream from the Hovav industrial complex in Nahal Sekher and Nahal Hovav: surface-subsurface interactions.
59. Chemical Industries of Israel (Rotem Amphert), 2015-2016: Decreasing erosion from areas undergoing open cast (phosphate) mining.
60. Israel Ministry of National Infrastructures, Energy and Water Resources, 2016-18: Monitoring hillslope erosion of reclaimed Zin phosphate mined areas as background for optimal hydro-geomorphological reclamation.
61. Neot Hovav Local Industrial Council, 2017. Evaluating the concentration and yield of solutes downstream from the Hovav industrial complex in Nahal Sekher and Nahal Hovav: surface-subsurface interactions.
62. Dead Sea Drainage Authority via Dead Sea Arava Science Center (2017-2020): Flood water and sediment yield from wadis draining the Judean Desert to the Dead Sea and Wadi Arugot scour at the artificial waterfall.
63. Dead Sea Drainage Authority via Dead Sea Arava Science Center (2017-2020): Incision near Road 90: Wadis David and Qedem. (Storz-Peretz Yael - PI)
64. Southern Jordan River Drainage Authority (2017-20). Erosion from the Harod Drainage Basin based on water, sediment monitoring and topographic mapping by SfM.
65. NSF-BSF 2019-2023: Monitoring bedload transport: Advancing seismic and acoustic surrogate methods in ephemeral channels (with Dan Cadol and Susan Bilek).
66. Israel Ministry of Environmental Protection (2019-22): Direct measurements of infiltration rates and transport of oil components above and below the surface of the braided channels of the Evrona Nature Reserve during flood events (with Ofer Dahan).
67. Nuclear Research Center, Negev (2019-2021). Magnitude of runoff and erosion processes in the Yamin Plain (with Noa Balaban).
68. Israel Water Authority (2020-2023): Monitoring of surface water velocity by LSPIV and determination of water discharge, roughness coefficients and rating curves for select hydrometric stations of the Israel Hydrological Service (with Avshalom Babad & Eran Halfi).

69. Hydromodul (2020-2022): Stability of the Zeelim alluvial fan in the vicinity of the new canal transferring Dead Sea Water to the evaporation ponds (with Eran Halfi).
70. Shiqma-Besor Drainage Authority (2021-2022): Deployment of hydrometric stations on Wadis Eshtemoa, Yatir and Anim and analyses of long term data.